

FIG. 1

SEQ ID 1 D58-BG7

1 GCACAACCTT GCTATCAACT TGGTCACATC TATGTTGGGT
61 CATTTGTTGC ATCATTTTAC ATGGGCTCCG GCGCCGGGGG TTAACCCGGA GGATATTGAC
121 TTGGAGGAGA GCCCTGGAAC AGTAACTTAC ATGAAAAATC CAATACAAGC TATTCCAACCT
181 CCAAGATTGC CTGCACACTT GTATGGACGT GTGCCAGTGG ATATGTAA

SEQ ID 2

AQLAINLVTSMLGHLHHFTWAPAPGVNPEDIDLEESPGTVTYMKNPIQAIPTPRLPAHLYGRVPVDM

FIG. 2

SEQ ID 3 D58-AB1

1 GCACAACCT TGCTATCAAC TTGGTCACAT CTATGTTGGG
61 TCATTTGTTG CATCATTTTA CGTGGGCTCC GCGCCGGGGG GTTAACCCGG AGAATATTGA
121 CTTGGAGGAG AGCCCTGGAA CAGTAACTTA CATGAAAAAT CCAATACAAG CTATTCCTAC
181 TCCAAGATTG CCTGCACACT TGTATGGACG TGTGCCAGTG GATATGTAA

SEQ ID 4

AQLAINLVTSMLGHLHHFTWAPPPGVNPNIDLEESPGTVTYMKNPIQAIPTPRLPAHLYGRVPVDM

FIG. 3

SEQ ID 5 D186-AH4

1 ATGAATTAT TCATTGCAAG TGGAACACCT TTCAATTGCT
61 CATATGATCC AAGGTTTCAG TTTTGCAACT ACGACCAATG AGCCTTTGGA TATGAAACAA
121 GGTGTGGGTT TAACTTTACC AAAGAAGACT GATGTTGAAG TGCTAATTAC ACCTCGCCTT
181 CCTCCTACGC TTTATCAATA TTAA

SEQ ID 6

MNYSLQVEHLSIAHMIQGFSEFATTTNEPLDMKQGVGLTLPKKTDVEVLITPRLPPTLYQY

FIG. 4

SEQ ID 7 D58-BE4

1 GCACAACCTT GCTATCAACT TGGTCACATC TATGTTGGGT
61 CATTTGTTCA TCATTTTACA TGGGCTCCGG CCGCGGGGGT TAACCCGGAG GATATTGACT
121 TGGAGGAGAG CCCTGGAACA GTAACCTTACA TGA

SEQ ID 8

AQLAINLVTSMLGHLFIILHGLRPRGLTRRIILTWRRALEQ

FIG. 5

SEQ ID 9 D56-AH7

1 GAAGGATTG GCTGTTTCGAA TGGTTGCCTT GTCATTGGGA
61 TGTATTATTC AATGTTTGA TTGGCAACGA ATCGGCGAAG AATTGGTTGA TATGACTGAA
121 GGAAGTGGAC TTAAGTTGCC TAAAGCTCAA CCTTTGGTGG CCAAGTGTAG CCCACGACCT
181 AAAATGGCTA ATCTTCTCTC TCAGATTGTA

SEQ ID 10

EGLAVRMVALSLGCIIQCFDWQRIGEELVDMTEGTGLTLPKAQPLVAKCSRPKMANLLSQI

FIG. 6

SEQ ID 11 D13a-5

1 GAAGGATTG GCTATTCGAA TGGTTGCATT GTCATTGGGA
61 TGTATTATTC AATGCTTTGA TTGGCAACGA CTTGGGGAAG GATTGGTTGA TAAGACTGAA
121 GGAAGTGGAC TTACTTTGCC TAAAGCTCAA CCTTTAGTGG CCAAGTGTAG CCCACGACCT
181 ATAATGGCTA ATCTTCTTTC TCAGATTGGA

SEQ ID 12

EGLAIRMVALSLGCIIQCFDWQRLGEGLVDKTEGTGLTLPKAQPLVAKCSRPIMANLLSQI

FIG. 7

SEQ ID 13 D56-AG10

1 ATAGGTTTT GCGACTTTAG TGACACATCT GACTTTTGGT
61 CGCTTGCTTC AAGGTTTTGA TTTTAGTAAG CCATCAAACA CGCCAATTGA CATGACAGAA
121 GGCGTAGGCG TTACTTTGCC TAAGGTTAAT CAAGTTGAAG TTCTAATTAC CCCTCGTTTA
181 CCTTCTAAGC TTTATTTATT TTGA

SEQ ID 14

IGFATLVTHLTFGRLLQGFDfsKPSNTPIDMTEGVGVTLPKVNQVEVLITPRLPSKLYLF

FIG. 8

SEQ ID 15 D35-33

1 ATAGGCTTT GCGACTTTAG TGACACATCT GACTTTTGGT
61 CGCTTGCTTC AAGGTTTTGA TTTTAGTAAG CCATCAAACA CGCCAATTGA CATGACAGAA
121 GGCGTAGGCG TTACTTTGCC TAAGGTTAAT CAAGTTGAAG TTCTAATTAC CCCTCGTTTA
181 CCTTCTAAGC TTTATTTAT

SEQ ID 16

IGFATLVTHLTFGRLLQGFDfsKPSNTPIDMTEGVGVTLPKVNQVEVLITPRLPSKLYL

FIG. 9

SEQ ID 17 D34-62

1 ATAAATTTT GCGACTTTAG TGACACATCT GACTTTTGGT
61 CGCTTGCTTC AAGGTTTTGA TTTTAGTACG CCATCAAACA CGCCAATAGA CATGACAGAA
121 GGCGTAGGCG TTACTTTGCC TAAGGTAAAT CAAGTGGAAG TTCTAATTAG CCCTCGTTTA
181 CCTTCTAAGC TTTATGTATT CTGA

SEQ ID 18

INFATLVTHLTFGRLLQGFDfsTPSNTPIDMTEGVGVTLPKVNQVEVLISPRLPskLYVF

FIG. 10

SEQ ID 19 D56AA7

1 ATTATACTT GCATTGCCAA TTCTTGGCAT CACTTTGGGA
61 CGTTTGGTTC AGAACTTTGA GCTGTTGCCCT CCTCCAGGCC AGTCGAAGCT CGACACCACA
121 GAGAAAGGTG GACAGTTCAG TCTCCACATT TTGAAGCATT CCACCATTGT GTTGAAACCA
181 AGGTCTTTCT GA

SEQ ID 20

IILALPILGITLGRLVQNfELLPPPGQSKLDtTEKGGQfSLHILKHSTIVLKPRSF

FIG. 11

SEQ ID 21 D56-AE1
1 ATTATACTT GCATTGCCAA TTCTTGGCAT TACTTTGGGA
61 CGTTTGGTTC AGAACTTTGA GCTGTTGCCT CCTCCAGGCC AGTCGAAGCT CGACACCACA
121 GAGAAAGGTG GACAGTTCAG TCTCCATATT TTGAAGCATT CCACCATTGT GTTGAAACCA
181 AGGTCTTGCT GA
SEQ ID 22
IILALPILGITLGRVLQNFELLPPPGQSKLDTTEKGGQFSLHILKHSTIVLKPRSC

FIG. 12

SEQ ID 23 D35-BB7
1 TATTGCACTT GGGGTTGCAT CAATGGAAct TGCATTGTCA
61 AATCTTCTTT ATGCATTGTA TTGGGAGTTA CCTTTTGGAA TGAAAAAAGA AGACATTGAC
121 ACAAACGCCA GGCCTGGAAT TACCATGCAT AAGAAAAACG AACTTTATCT TATCCCTAAA
181 AATTATCTAT AG
SEQ ID 24
IALGVASMELALSNLLYAFDWELPFGMKKEDIDTNARPGITMHKKNELYLIPKKNYLPSKLYLF

FIG. 13

SEQ ID 25 D177-BA7
1 ATTGCACTTG GGGTTGCATC CATGGAActT
121 GCTTTGTCAA ATCTTCTTTA TGCATTGAT TGGGAGTTAC CTTACGGAGT GAAAAAAGAA
181 AACATTGACA CAAATGTCAG GCCTGGAATT ACCATGCATA AGAAAAACGA ACTTTGCCTT
241 ATCCCTAGAA ATTATCTATA G
SEQ ID 26
IALGVASMELALSNLLYAFDWELPYGVKKENIDTNVRPGITMHKKNELCLIPRNYL

FIG. 14

SEQ ID 27 D56A-AB6
1 GGTATTGCAC TTGGGGTTGC ATCCATGGAA CTTGCTTTGT CAAATCTTCT TTATGCATTT
61 GATTGGGAGT TGCCTTATGG AGTGAAAAAA GAAGACATCG ACACAAACGT TAGGCCTGGA
121 ATTGCCATGC ACAAGAAAAA CGAACTTTGC CTTGTCCCAA AAAATTATTT ATAA
SEQ ID 28
IALGVASMELALSNLLYAFDWELPYGVKKEDIDTNVRPGIAMHKKNELCLVPKKNYL

FIG. 15

SEQ ID 29 D144-AE2
1 ATT GCACTTGGGG TTGCATCCAT GGAActTGCT
61 TTGTCAAATC TTCTTTATGC ATTTGATTGG GAGTTGCCTT ATGGAGTGAA AAAAGAAGAC
121 ATCGACACAA ACGTTAGGCC TGGAATTGCC ATGCACAAGA AAAACGAACT TTGCCTTGTC
181 CCAAAAAAAT TATTTATAAA TTATATTGGG ACGTGGATCT CATGCTAG
SEQ ID 30
IALGVASMELALSNLLYAFDWELPYGVKKEDIDTNVRPGIAMHKKNELCLVPKKLFINYIGTWISC

FIG. 16

SEQ ID 31 D56-AG11
1 ATTCGTTT GGTTTAGCTA ATGCTTATTT GCCATTGGCT
61 CAATTACTTT ATCACTTTGA TTGGGAACTC CCCACTGGAA TCAAACCAAG CGACTTGGAC
121 TTGACTGAGT TGGTTGGAGT AACTGCCGCT AGAAAAAGTG ACCTTTACTT GGTGCGACT
181 CCTTATCAAC CTCCTCAAAA CTGA
SEQ ID 32
ISFGLANAYLPLAQLLYHFDWELPTGIKPSDLDLTELVGVTAAARKSDLYLVATPYQPPQN

FIG. 17

SEQ ID 33 D179-AA1
1 ATTCGTTT GGCTTAGCTA ATGCTTATTT GCCATTGGCT
61 CAATTACTAT ATCACTTCGA TTGGAAACTC CCTGCTGGAA TCGAACCAAG CGACTTGGAC
121 TTGACTGAGT TGGTTGGAGT AACTGCCGCT AGAAAAAGTG ACCTTTACTT GGTGCGACT
181 CCTTATCAAC CTCCTCAAAA GTGA
SEQ ID 34
ISFGLANAYLPLAQLLYHFDWKLPAGIEPSDLDLTELVGVTAAARKSDLYLVATPYQPPQK

FIG. 18

SEQ ID 35 D56-AC7
1 ATGCTATTT GGTTTAGCTA ATGTTGGACA ACCTTTAGCT
61 CAGTTACTTT ATCACTTCGA TTGGAAACTC CCTAATGGAC AAAGTCATGA GAATTTGAC
121 ATGACTGAGT CACCTGGAAT TTCTGCTACA AGAAAGGATG ATCTTGTTTT GATTGCCACT
181 CCTTATGATT CTTATTAATTCCAGTCTA TATCATCTAT ATGTACTCAA TAATTGTATG
361 GGA
SEQ ID 36
MLFGLANVGQPLAQLLYHFDWKLPNGQSHENFDMTESPGISATRKDDLVLIAATPYDSY

FIG. 19

SEQ ID 37 D144-AD1
1 ATGC TATTTGGTTT AGCTAATGTT
61 GGACAACCTT TAGCTCAGTT ACTTTATCAC TTCGATTGGA AACTCCCTAA TGGACAACT
121 CACCAAAATT TCGACATGAC TGAGTCACCT GGAATTTCTG CTACAAGAAA GGATGATCTT
181 ATTTTGATTG CCACTCCTGC TCATTCTTGA
SEQ ID 38
MLFGLANVGQPLAQLLYHFDWKLPNGQTHQNFDMTESPGISATRKDDLILIAATPAHS

FIG. 20

SEQ ID 39 D144-AB5
1 TTAT TATTCGGTTT AGTTAATGTA
61 GGACATCCTT TAGCTCAATT GCTTTATCAC TTCGATTGGA AGACTCTTCC TGGGATAAGT
121 TCAGATAGTT TCGACATGAC TGAAACAGAT GGAGTAACTG CCGGAAGAAA GGATGATCTT
181 TGTTAATTG CTACTCCTTT TGGTCTCAAT TAA
SEQ ID 40
LLFGLVNVGHPLAQLLYHFDWKTLPGISSDSFDMTETDGVTAGRKDDLCLIAATPFGLN

FIG. 21

SEQ ID 41 D181-AB5

1 A TGTCGTTTGG TTTAGTTAAC ACTGGGCATC CTTTAGCTCA
61 GTTGCTCTAT TTCTTTGACT GGAAATCC TCATAAGGTT AATGCAGCTG ATTTTCACAC
121 TACTGAAACA AGTAGAGTTT TTGCAGCAAG CAAAGATGAC CTCTACTTGA TTCCAACAAA
181 TCACATGGAG CAAGAGTAG

SEQ ID 42

MSFGLVNTGHPLAQLLYFFDWKFPHKVNAADFHTTETSRVFAASKDDLYLIPTNHMEQE

FIG. 22

SEQ ID 43 D73-AC9

1 AT GTCGTTTGGT TTAGTTAACA CAGGGCATCC TTTAGCCCAG
121 TTGCTCTATT GCTTTGACTG GAAACTCCCT GACAAGGTTA ATGCAAATGA TTTTCGCACT
181 ACTGAAACAA GTAGAGTTT TGCAGCAAGC AAAGATGACC TCTACTTGAT TCCCACAAAT
241 CACAGGGAGC AAGAATAG

SEQ ID 44

MSFGLVNTGHPLAQLLYCFDWKLDPKVNANDFRTTETSRVFAASKDDLYLIPTNHREQE

FIG. 23

SEQ ID 45 D56-AC12

1 ATGCAATTT GGTTTGGCTC TTGTTACTCT GCCATTGGCT
61 CATTTGCTTC ACAATTTTGA TTGGAACTT CCCGAAGGAA TTAATGCAAG GGATTGGAC
121 ATGACAGAGG CAAATGGGAT ATCTGCTAGA AGAGAAAAAG ATCTTTACTT GATTGCTACT
181 CCTTATGTAT CACCTCTTGA TTAA

SEQ ID 46

MQFGALVTLPLAHLHNFWDWKLPEGINARDLDMTEANGISARREKDLYLIATPYVSPLD

FIG. 24

SEQ ID 47 D58-AB9

1 ATGACTTAT GCATTGCAAG TGGAACACCT AACAATGGCA
61 CATTTGATCC AGGGTTTCAA TTACAGAACT CCAACTGATG AGCCCTTGGA TATGAAAGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGTGAAAG TGATAATTAC GCCTCGCTTG
181 GCACCTGAGC TTTATTAA

SEQ ID 48

MTYALQVEHLTMAHLIQGFNYRTPDEPLDMKEGAGITIRKVPVKVIITPRLAPELY

FIG. 25

SEQ ID 49 D56-AG9

1 ATGACTTAT GCATTGCAAG TGGAACACCT AACAATGGCA
61 CATTTAATCC AGGGTTTCAA TTACAAAAC CCAATGACG AGGCCTTGGA TATGAAGGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGTGGAAC TGATAATAGC GCCTCGCCTG
181 GCACCTGAGC TTTATTAA

SEQ ID 50

MTYALQVEHLTMAHLIQGFNYKTPNDEALDMKEGAGITIRKVPVELIIPRLAPELY

FIG. 26

SEQ ID 51 D56-AG6
1 ATGACTTAT GCATTGCAAG TGGAACACCT AACAATGGCA
61 CATTTAATCC AGGGTTTCAA TTACAAAACCT CCAAATGACG AGGCCTTGGA TATGAAGGAA
121 GGTGCAGGCA TAACAATACG TAAGGTAAAT CCACTGGAAT TGATAATAAC GCCTCGCTTG
181 GCACCTGAGC TTTACTAA
SEQ ID 52
MTYALQVEHLTMAHLIQGFNYKTPNDEALDMKEGAGITIRKVPVELIITPRLAPELY

FIG. 27

SEQ ID 53 D35-BG11
1 ATGACTTAT GCATTGCAAG TGGAACACTT AACAATGGCA
61 CATTTGATCC AAGGTTTCAA TTACAGAACT CCAAATGACG AGCCCTTGGA TATGAAGGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGTGGAAC TGATAATAGC GCCTCGCCTG
181 GCACCTGAGC TTTATTAA
SEQ ID 54
MTYALQVEHLTMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVPVELIIPRLAPELY

FIG. 28

SEQ ID 55 D35-42
1 ATGACTTAT GCATTGCAAG TGGAACACTT AACAATGGCA
61 CATTTGATCC AAGGTTTCAA TTACAGAACT CCAAATGACG AGCCCTTGGA TATGAAGGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGTGGAAC TGATAATAGC GCCCCTGGCA
181 CCTGAGCTTT ATTAA
SEQ ID 56
MTYALQVEHLTMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVPVELIIPRLAPELY

FIG. 29

SEQ ID 57 D35-BA3
1 ATGACTTAT GCATTGCAAG TGGAACACTT AACAATGGCA
61 CATTTGATCC AAGGTTTCAA TTACAGAACT CCAAATGACG AGCCCTTGGA TATGAAGGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGCGGAAC TGATAATAGC GCCTCGCCTG
181 GCACCTGAGC TTTATTAA
SEQ ID 58
MTYALQVEHLTMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVPVELIIPRLAPELY

FIG. 30

SEQ ID 59 D34-57
1 ATGACTTAT GCATTACAAG TGGAACACCT AACAATAGCA
61 CATTTGATCC AGGGTTTCAA TTACAAAACCT CCAAATGACG AGCCCTTGGA TATGAAGGAA
121 GGTGCAGGAT TAACCATACG TAAAGTAAAT CCTGTAGAAG TGACAACTAC GGCTCGCCTG
181 GCACCTGAGC TTTATTAA
SEQ ID 60
MTYALQVEHLTIAHLIQGFNYKTPNDEPLDMKEGAGLTIRKVPVEVTTTARLAPELY

FIG. 31

SEQ ID 61 D34-52
1 ATGACTTAT GCATTACAAG TGGAACACCT AACAAATAGCA
61 CATTTGATCC AGGGTTTCAA TTACAAAACCT CCAAATGACG AGCCCTTGGA TATGAAGGAA
121 GGTGCAGGAT TAACTATACG TAAAGTAAAT CCTGTAGAAG TGACAATTAC GGCTCGCCTG
181 GCACCTGAGC TTTATTAA
SEQ ID 62
MTYALQVEHLTIAHLIQGFNYKTPNDEPLDMKEGAGLTIRKVNPEVTITARLAPELY

FIG. 32

SEQ ID 63 D34-25
1 ATGACTTAT GCATTACAAG TGGAACACCT AACAAATAGCA
61 CATTTGATCC AGGGTTTCAA TTACAAAACCT CCAAATGACG AGCCCTTGGA TATGAAGGAA
121 GGTGCAGGAT TAACTATACG TAAAGTAAAT CCTGTAGAAG TGACAATTAC GGCTCGCCTG
181 GCACCTGAGC TTTATTAA
SEQ ID 64
MTYALQVEHLTIAHLIQGFNYKTPNDEPLDMKEGAGLTIRKVNPEVTITARLAPELY

FIG. 33

SEQ ID 65 D56AD10
1 TATAGCCTT GGACTIONAAG TTATCCGAGT AACATTAGCC
61 AACATGTTGC ATGGATTCAA CTGGAAATTA CCTGAAGGTA TGAAGCCAGA AGATATAAGT
121 GTGGAAGAAC ATTATGGGCT CACTACACAT CCTAAGTTTC CTGTTCTGT GATCTTGGA
181 TCTAGACTTT CTTCAGATCT CTATTCCCCC ATCACTTAA
SEQ ID 66
YSLGLKVRVTLANMLHGFNWKLPEGMKPEDISVEEHYGLTTHPKFPVPVILESRLSSDLYSPIT

FIG. 34

SEQ ID 67 D56-AA11
1 ATACAGTCTT GGGATTTCGTA TAATTAGGGC AACTTTAGCT
61 AACTTGTTGC ATGGATTCAA CTGGAGATTG CCTAATGGTA TGAGTCCAGA AGACATTAGC
121 ATGGAAGAGA TTTATGGGCT AATTACACAC CCCAAAGTCG CACTTGACGT GATGATGGAG
181 CCTCGACTTC CCAACCATCT TTACAAATAG
SEQ ID 68
YSLGIRIIRATLANLLHGFNWRLPNGMSPEDISMEEIYGLITHPKVALDVMMEPRLPNHLYK

FIG. 35

SEQ ID 69 D177-BD5
1 ATTAATTTTT CAATACCACT TGTTGAGCTT
121 GCACTTGCTA ATCTATTGTT TCATTATAAT TGGTCACTTC CTGAAGGGAT GCTAGCTAAG
181 GATGTTGATA TGGGAAGAGC TTTGGGGATT ACCATGCACA AGAAATCTCC CCTTTGCTTA
241 GTAGCTTCTC ATTATACTTG TTGA
SEQ ID 70
INFSIPLVELALANLLFHYNWSLPEGMLAKDVMEEALGITMHKKSPLCLVASHYTC

FI . 36

SEQ ID 71 D56A-AG10
1 ATGCAACTTG GGCTTTATGC ATTGGAAATG GCTGTGGCCC ATCTTCTTCA TTGTTTACT
61 TGGGAATTGC CAGATGGTAT GAAACCAAGT GAGCTTAAAA TGGATGATAT TTTTGGACTC
121 ACTGCTCCAA AAGCTAATCG ACTCGTGGCT GTGCCTACTC CACGTTTGTT GTGTCCCCTT
181 TATTAATTGA

SEQ ID 72
MQLGLYALEMAVAHLLHCFTWELPDGMKPSELKMDDIFGLTAPKANRLVAVPTPRLLCPLY

FIG. 37

SEQ ID 73 58-BC5
1 ATGCAACTT GGGCTTTATG CATTAGAAAT GGCAGTGGCC
61 CATCTTCTTC TTTGCTTTAC TTGGGAATTG CCAGATGGTA TGAAACCAAG TGAGCTTAAA
121 ATGGATGATA TTTTGGACT CACTGCTCCA AGAGCTAATC GACTCGTGGC TGTGCCTAGT
181 CCACGTTTGT TGTGCCCACT TTATTAA

SEQ ID 74
MQLGLYALEMAVAHLLLCFTWELPDGMKPSELKMDDIFGLTAPRANRLVAVPSRLLCPLY

FIG. 38

SEQ ID 75 D58-AD12
1 ATGCAACTT GGGCTTTATG CATTGGAAAT GGCTGTGGCC
61 CATCTTCTTC ATTGTTTTAC TTGGGAATTG CCAGATGGTA TGAAACCAAG TGAGCTTAAA
121 ATGGATGATA TTTTGGACT CACTGCTCCA AGAGCTAATC GACTCGTGGC TGTGCCTACT
181 CCACGTTTGT TGTGTCCCCT TTATTAA

SEQ ID 76
MQLGLYALEMAVAHLLHCFTWELPDGMKPSELKMDDIFGLTAPRANRLVAVPTPRLLCPLY

FIG. 39

SEQ ID 77 D56-AC11
1 ATGCTTTGG AGTGCGAGTA TAGTGCGCGT CAGCTACCTA
61 ACTTGATTTT ATAGATTCCA AGTATATGCT GGGTCTGTGT TCAGAGTAGC ATGA

SEQ ID 78
MLWSASIVRVSYLTCTIYRFQVYAGSVFRVA

FIG. 40

SEQ ID 79 D35-39
1 ATGCTTTGG AGTGCGAGTA TAGTGCGCGT CAGCTACCTA
61 ACTTGATTTT ATAGATTCCA AGTATATGCT GGGTCTGTGT TCAGAGTAGC ATGA

SEQ ID 80
MLWSASIVRVSYLTCTIYRFQVYAGSVFRVA

FIG. 41

SEQ ID 81 D58-BH4

1 ATGCTTTGG AGTGCGAGTA TAGTGCGCGT CAGCTACCTA
61 ACCTGTATTT ATAGATTCCA AGTATATGCT GGGTCTGTGT TCAGAGTAGC ATGA

SEQ ID 82

MLWSASIVRVSYLTCTYRFQVYAGSVFRVA

FIG. 42

SEQ ID 83 D177-BD7

1 ATTAATTTTT CAATACCACT TGTGAGCTT GCACTTGCTA ATCTATTGTT TCATTATAAT
61 TGGTCACTTC CTGAGGGGAT GCTACCTAAG GATGTTGATA TGGAAGAAGC TTTGGGGATT
121 ACCATGCACA AGAAATCTCC CCTTGCTTA GTAGCTTCTC ATTATAACTT GTTGTGA

SEQ ID 84

INFSIPLVELALANLLFHYNWSLPEGMLPKDMDMEEALGITMHKKSPLCLVASHYNLL

FIG. 43

SEQ ID 85

D176-BF2

1 AT ATCATTTGGT TTGGCTAATG TTTATTTGCC ACTAGCTCAA
121 TTGTTATATC ATTTTGATTG GAACTCCCT ACTGGAATCA ATTCAAGTGA CTTGGACATG
181 ACTGAGTCGT CAGGAGTAAC TTGTGCTAGA AAGAGTGATT TATACTTGAC TGCTACTCCA
241 TATCAACTTT CTCAAGAGTG A

SEQ ID 86

GISFGLANVYLPLAQLLYHFDWKLPTGINSSDLDMTESSGVTCARSDLYLTATPYQLSQE

FIG. 44

SEQ ID 87 D56-AD6

1 ATGCTTTGG AGTGCGAGTA TAGTGCGCGT CAGCTACCTA
61 ACTTGTATTT ATAGATTCCA AGTATATGCT GGGTCTGTGT CCAGAGTAGC ATGA

SEQ ID 88

MLWSASIVRVSYLTCTYRFQVYAGSVSRVA

FIG. 45

SEQ ID 89 D73A-AD6

1 CT GAATTTTGCA ATGTTAGAGG CAAAAATGGC ACTTGCAATTG
121 ATTCTACAAC ACTATGCTTT TGAGCTCTCT CCATCTTATG CACATGCTCC TCATACAATT
181 ATCACTCTGC AACCTCAACA TGGTGCTCCT TTGATTTTGC GCAAGCTGTA G

SEQ ID 90

LNFMLEAKMALALILQHYAFELSPSYAHAPHTIITLQPQHGAPLILRKL

FIG. 46

SEQ ID 91 D70A-BA11
 1 CT GAATTTTGCA ATGTTAGAGG CAAAAATGGC ACTTGCATTG
 121 ATTCTACAAC ACTATGCTTT TGAGCTCTCT CCATCTTATG CACACGCTCC TCATACAATT
 181 ATCACTCTGC AACCTCAACA TGGTGCTCCT TTGATTTTGC GCAAGCTGTA G
 SEQ ID 92
 LNFAMLEAKMALALILQHYAFELSPSYAHAPHTIITLQPQHGAPLILRKL

FIG. 47

SEQ ID 93 D70A-BB5
 1 AA TAATTTTGCA ATGTTGGAAG CTAAGATTGC CTTAGCAATG
 121 ATCCTACAGC GTTTTGCTTT CGAGCTTTCT CCATCTTACG CTCATGCACC TACTTATGTC
 181 GTCACCTCTC GACCTCAGTG TGGTGCTCAC TTAATCTTGC AAAAATTATA GGTCCCTAAT
 241 CTGGATTTCC CATTATTGAG TAGTGCCTAA TAAATCTTCT CTATCACTAT TTTTCCATCT
 301 TTCA
 SEQ ID 94
 NNFAMLETKIALAMILQRFELSPSYAHAPTYVVTLRPQCGAHLILQKL

FIG. 48

SEQ ID 95 D70A-AB5
 1 AGCGAAGGGG TGGCAAAGGC AACAAAGGGG AAAATGACAT ATTTTCCATT TGGTGCAGGA
 61 CCGCGAAAAT GCATTGGGCA AAACCTTCGCG ATTTTGGAAG CAAAAATGGC TATAGCTATG
 121 ATTCTACAAC GCTTCTCCTT CGAGCTCTCC CCATCTTATA CACACTCTCC ATACACTGTG
 181 GTCACCTTTGA AACCCAAATA TGGTGCTCCC CTAATAATGC ACAGGCTGTA GTCCTGTGAG
 241 AATATGCTAT CCGAGGAATT CAGTTCCT
 SEQ ID 96
 QNFAILEAKMAIAMILQRFSEFELSPSYTHSPYTVVTLKPKYGAPLIMHRL

FIG. 49

SEQ ID 97 D70A-AA8
 1 AGCGAAGGGG TGGCAAAGGC AACAAAGGGG AAAATGACAT ATTTTCCATT TGGTGCAGGA
 61 CCGCGAAAAT GCATTGGGCA AAACCTTCGCG ATTTTGGAAG CAAAAATGGC TATAGCTATG
 121 ATTCTACAAC GCTTCTCCTT CGAGCTCTCT CCATCTTATA CACACTCTCC ATACACTGTG
 181 GTCACCTTTGA AACCCAAATA TGGTGCTCCC CTAATAATGC ACAGGCTGTA GTCCTGT
 SEQ ID 98
 QNFAILEAKMAIAMILQRFSEFELSPSYTHSPYTVVTLKPKYGAPLIMHRL

FIG. 50

SEQ ID 99 D70A-AB8
 1 C AAAATTTTGC CATGTTAGAA GCAAAGATGG CTCTGTCTAT GATCCTGCAA
 121 CGTTCTCTT TTGAAGTCTC TCCGTCTTAT GCACATGCCC CTCAGTCCAT ATTAACCGT
 181 CAGCCACAAT ATGGTGCTCC ACTTATTTTC CACAAGCTAT AA
 SEQ ID 100
 QNFAMLEAKMALSMILQRFSEFELSPSYAHAPQSILTVQPQYGAPLIFHKL

FIG. 51

SEQ ID 101 D70A-BH2
1 AT AAACTTTGCA ATGACAGAAG CGAAGATGGC TATGGCTATG
121 ATTCTGCAAC GCTTCTCCTT TGAGCTATCT CCATCTTACA CACATGCTCC ACAGTCTGTA
181 ATAACATATGC AACCCCAATA TGGTGCTCCT CTTATATTGC ACAAATTGTA A
SEQ ID 102
INFAMTEAKMAMAMILQRFSFELSPSYTHAPQSVITMQPQYGAPLILHKL

FIG. 52

SEQ ID 103 D70A-AA4
1 AT AAACTTTGCA ATGGCAGAAG CGAAGATGGC TATGGCTATG
121 ATTCTGCAAC GCTTCTCCTT TGAGCTATCT CCATCTTACA CACATGCTCC ACAGTCTGTA
181 ATAACATATGC AACCCCAATA TGGTGCTCCT CTTATATTGC ACAAATTGTA A
SEQ ID 104
INFAMAEAKMAMAMILQRFSFELSPSYTHAPQSVITMQPQYGAPLILHKL

FIG. 53

SEQ ID 105 D70A-BA1
1 CA AAACTTTGCA ATGATGGAAG CAAAAATGGC AGTAGCTATG
121 ATACTACAAA AATTTTCCTT TGAACATATCC CCTTCTTATA CACATGCTCC ATTTGCAATT
181 GTGACTATTC ATCCTCAGTA TGGTGCTCCT CTGCTTATGC GCAGACTTTA A
SEQ ID 106
QNFAMMEAKMAVAMILQKFSFELSPSYTHAPFAIVTIHPQYGAPLLMRRL

FIG. 54

SEQ ID 107 D70A-BA9
1 CA AAACTTTGCA ATGATGGAAG CAAAAATGGC AGTAGCTATG
121 ATACTACATA AATTTTCCTT TGAACATATCC CCTTCTTATA CACATGCTCC ATTTGCAATT
181 GTGACTATTC ATCCTCAGTA TGGTGCTCCT CTGCTTATGC GCAGACTTTA A
SEQ ID 108
QNFAMMEAKMAVAMILHKFSFELSPSYTHAPFAIVTIHPQYGAPLLMRRL

FIG. 55

SEQ ID 109 D70A-BD4
1 CA AAATTTTGCT ATGTTAGAGG CTAAATGGC AATGGCTATG
121 ATTCTGAAAA CCTATGCATT TGAACCTCTCT CCATCTTATG CTCATGCTCC TCATCCACTA
181 CTAATTC AAC CTCAATATGG TGCTCAATTA ATTTTGTACA AGTTGTAG
SEQ ID 110
QNFAMLEAKMAMAMILKTYAFELSPSYAHAPHPLLLQPQYGAQLILYKL

FI . 56

SEQ ID 111 D181-AC5
1 TATAGCATGG GGCTCAAGGC GATTCAAGCT AGCTTAGCTA
61 ATCTTCTACA TGGATTTAAC TGGTCATTGC CTGATAATAT GACTCCTGAG GACCTCAACA
121 TGGATGAGAT TTTTGGGCTC TCTACACCTA AAAAATTTCC ACTTGCTACT GTGATTGAGC
181 CAAGACTTTC ACCAAAACCTT TACTCTGTTT GA
SEQ ID 112
YSMGLKAIQASLANLLHGFNWSLPDNMTPEDLNMDEIFGLSTPKKFPLATVIEPRLSPKLYSV

FIG. 57

SEQ ID 113 D144-AH1
1 TAT AGCTTGGGGC TCAAGGAGAT TCAAGCTAGC
61 TTAGCTAATC TTCTACATGG ATTTAACTGG TCATTGCCTG ATAATATGAC TCCTGAGGAC
121 CTCAACATGG ATGAGATTTT TGGGCTCTCT ACACCTAAAA AATTCCACT TGCTACTGTG
181 ATTGAGCCAA GACTTTCACC AAAACTTTAC TCTGTTTGA
SEQ ID 114
YSLGLKEIQASLANLLHGFNWSLPDNMTPEDLNMDEIFGLSTPKKFPLATVIEPRLSPKLYSV

FIG. 58

SEQ ID 115 D34-65
1 CATAGCTTG GGGCTCAAGG TGATTCAAGC TAGCTTAGCT
61 AATCTTCTAC ATGGATTTAA CTGGTCATTG CCTGATAATA TGAATCCTGA GGACCTCAAC
121 ATGGATGAGA TTTTGGGCT CTCTACACCT AAAAAATTTT CACTTGCTAC TGTGATTGAG
181 CCAAGACTTT CACCAAACTT TTAATCTGTT TGA
SEQ ID 116
HSLGLKVIQASLANLLHGFNWSLPDNMTPEDLNMDEIFGLSTPKKFPLATVIEPRLSPKLYSV

FIG. 59

SEQ ID 117 D35-BG2
1 CTGTGCTTT CCATGTTTAA TCTCTAGTTA TATACTGGCT
61 TTGAATGTGA ATCTGTATCA TAATTTCTTG CAAATTTCTC CTTCCATTTC TTATTAA
SEQ ID 118
LCFPCLISSYILALNVNLYHNFLQISPSISY

FIG. 60

SEQ ID 119 D73A-AH7
1 TCTG GACTTGCTCA ATGTGTGGTT GGTTTAGCTT TAGCAACTCT AGTGCACTGT
121 TTTGAGTGGA AAAGGGTAAG CGAAGAGGTG GTTGATTGA CGGAAGGAAA AGGTCTCACT
181 ATGCCAAAAC CCGAGCCACT CATGGCTAGG TGCGAAGCTC GTGACATTTT TCACAAAGTT
241 CTTTCAGAAA TATCTTAA
SEQ ID 120
SGLAQCVVGLALATLVQCFEWKRVSEEVVDLTEGKGLTMPKPEPLMARCEARDIFHKVLSEIS

FIG. 61

SEQ ID 121 D58-AA1
1 TTGGGCTTG GCAACGGTGC ATGTGAATTT GATGTTGGCC
61 CGAATGATTC AAGAATTTGA ATGGTCCGCT TACCCGGAAA ATAGGAAAGT GGATTTTACT
121 GAGAAATTGG AATTTACTGT GGTGATGAAA AATCCTTTAA GAGCTAAGGT CAAGCCAAGA
181 ATGCAAGTGG TGTAA
SEQ ID 122
LGLATVHVNLMLARMIQEFWSAYPENRKVDFTEKLEFTVVMKNPLRAKVKPRMQVV

FIG. 62

SEQ ID 123 D73A-AE10
1 TATGCTT TGGCTATGCT TCATTTAGAG
121 TACTTTGTGG CTAATTTGGT TTGGCATTIT CGATGGGAGG CTGTGGAGGG AGATGATGTT
181 GATCTTTTCA AAAAGCTAGA ATTCACCGTT GTGATGAAGA ATCCACTTCG AGCTCGTATC
241 TGCCCCAGAG TTAACCTCTAT TTGA
SEQ ID 124
YALAMLHLEYFVANLVWHFRWEAVEGDDVDLSEKLEFTVVMKNPLRARICPRVNSI

FIG. 63

SEQ ID 125 D56A-AC12
1 GGTCAGCAAG TTGGACTTCT TAGAACAACC ATTTTCATCG CCTCATTACT GTCTGAATAT
61 AAGCTGAAAC CTCGCTCACA CCAGAAACAA GTTGAACCTCA CCGATTTAAA TCCAGCAAGT
121 TGGCTTCATT CGATAAAAGG CGAACTGTTA GTCGATGCGA TTCCTCGAAA GAAGGCGGCA
181 TTTTAA
SEQ ID 126
GQQVGLLRTTIFIASLLSEYKLKPRSHQKQVELTDLNPASWLHSIKGELLVDAIPRKKAFF

FIG. 64

SEQ ID 127 D177-BF7
1 ATCACATTTG CTAAGTTTGT GAATGAGCTA
121 GCATTGGCAA GATTAATGTT CCATTTTGAT TTCTCGCTAC CAAAAGGAGT TAAGCATGAG
181 GATTTGGACG TGGAGGAAGC TGCTGGAATT ACTGTTAGAA GGAAGTTCCC CCTTTTAGCC
241 GTCGCCACTC CATGCTCGTG A
SEQ ID 128
ITFAKFVNELALARLMFHDFSLPKGVKHEDLDVEEAAGITVRRKFPLLAVATPCS

FIG. 65

SEQ ID 129 D73A-AG3
1 CA GAGGTATGCT ATAAACCATT TGATGCTCTT TATTGCGTTG
121 TTCACGGCTC TGATTGATTT CAAGAGGCAC AAAACGGACG GCTGTGATGA TATCGCGTAT
181 ATTCCAACCA TTGCTCCAAA GGATGATTGT AAAGTGTTC TTTACAGAG GTGCACTCGA
241 TTCCCATCTT TTTCATGA
SEQ ID 130
QRYAINHMLFIALFTALIDFKRHKTGCDIAYIPTIAPKDDCKVFLSQRCTRFPSPFS

FIG. 66

SEQ ID 131 D70A-AA12
1 ATG TCATTTGGTT TAGCTAATCT TTACTTACCA TTGGCTCAAT
121 TACTCTATCA CTTTGACTGG AACTCCCAA CCGGAATCAA GCCAAGAGAC TTGGACTTGA
181 CCGAATTATC GGAATAACT ATTGCTAGAA AGGGTGACCT TTACTTAAAT GCTACTCCTT
241 ATCAACCTTC TCGAGAGTAA
SEQ ID 132
MSFGLANLYLPLAQLLYHFDWKLPTGIKPRDLDELTELSGITIARKGDLYLNATPYQPSRE

FIG. 67

SEQ ID 133 D185-BC1
1 TTGGGCTTG GCAACGGTGC ATGTGAATTT GATGTTGGCC
61 CGAACGATTC AAGAATTTGA ATGGTCCGCT TACCCGAAA ATAGGAAAGT GGATTTtACT
121 GAGAAATTGG AATTACTGT GGTGATGAAA AACCCTTTAA GAGCTAAGGT CAAGCCAAGA
181 ATGCAAGTGG TGTAA
SEQ ID 134
LGLATVHVNLMMLARTIQEFWSAYPENRKVDFTKLEFTVVMKNPLRAKVKPRMQVV

FIG. 68

SEQ ID 135 D185-BG2
1 TTGGGCTTG GCAACGGTGC ATGTGAATTT GATGTTGGCC
61 CGAATGATTC AAGAATTTGA ATGGTCCGCT TACCCGAAA ATAGGAAAGT GGATTTACTG
121 AGAAATTGGA ATTTACTGTG GTGA
SEQ ID 136
LGLATVHVNLMMLARMIQEFWSAYPENRKVDLLRNWNLLW

FIG. 69

SEQ ID 137 D185-BE1
1 ATCACATTT GCTAAGTTTG TGAATGAGCT AGCATTGGCA
61 AGATTAATGT TCCATTTTGA TTTCTCGCTA CAAAAGGAG TTAAGCATGA GGATTTGGAC
121 GTGGAGGAAG CTGCTGGAAT TACTGTTAGG AGGAAGTTCC CCCTTTTAGC CGTCGCCACT
181 CCATGCTCGT GA
SEQ ID 138
ITFAKFVNELALARLMFHDFSLPKGVKHEDLDVEEAAGITVRRKFLLAVATPCS

FIG. 70

SEQ ID 139 D185-BD2
1 ATCACATTT GCTAAGTTTG TGAATGAGCT AGCATTGGCA
61 AGATTAATGT TCCATTTTGA TTTCTCGCTA CAAAAGGAG TTAAGCATGC GGATTTGGAC
121 GTGGAGGAAG CTGCTGGAAT TACTGTTAGA AGGAAGTTCC CCCTTTTAGC CGTCGCCACT
181 CCATGCTCGT GA
SEQ ID 140
ITFAKFVNELALARLMFHDFSLPKGVKHADLDVEEAAGITVRRKFLLAVATPCS

FIG. 71

SEQ ID 141 D176-BG2
1 CA AAATTTTGCC ATGTTAGAAG CAAAGACTAC TTTGGCTATG
121 ATCCTACAAC GCTTCTCCTT TGAAGTGTCT CCATCTTATG CACATGCTCC TCAGTCCATA
181 ATAACCTTGC AACCCAGTA TGGTGCTCCA CTTATTTTGC ATAAAATATA
SEQ ID 142
QNFAMLEAKTTLAMILQRFSELSPSYAHAPQSIITLQPQYGAPLILHKI

FIG. 72

SEQ ID 143 D185-BD3
1 ATTATCCTT GCACTGCCAA TTCTTGGCAT TACCTTGGGA
61 CGCTTGGTGC AGAACTTTGA GTTGTTCCTT CCTCCAGGAC AGTCAAAGCT TGACACAACA
121 GAGAAAGGCG GGCAATTCAG TCTGCACATT TTGAAGCATT CCACCATTGT GATGAAACCA
181 AGATCTTTTT AA
SEQ ID 144
IILALPILGITLGRVLVQNFELLPPPGQSKLDTTEKGGQFSLHILKHSTIVMKPRSF

FIG. 73

SEQ ID 145 D176-BC3
1 C AAAATTTTGC CATGTTAGAA GCAAAGACTA CTTTGGCTAT
121 GATCCTACAA CGCTTCTCCT TTGAACTGTC TCCATCTTAT GCACATGCTC CTCAGTCCAT
181 AATAACTTGC AACCCAGTA TGGTGCTCCA CTTATTTTGC ATAAAATATA GTTTATTACT
241 TGTAAGTAGT GTCTCGTTTT ATGTTAAGCA TGAGTCCAAA ATGTTAAGGC TTGTAGAACT
301 GCAAAATGGG AATGCATTTG CACTCGTGCA CTGTAGATTG TTGTAA
SEQ ID 146
QNFAMLEAKTTLAMILQRFSELSPSYAHAPQSIITCNPSMVLHLCIKYSLLLVSSVSFYVKHESKMLRLVELQNGNA
FALVHCRL

FIG. 74

SEQ ID 147 D176-BB3
1 GCTGAT
61 ATGGGGTTGC GAGCAGTTTC TTTGGCATTG GGTGCACTTA TTCAATGCTT TGAAGTGGCA
121 ATTGAGGAAG CGGAAAGCTT GGAGGAAAGC TATAATTCTA GAATGACTAT GCAGAACAAAG
181 CCTTTGAAGG TTGTCTGCAC TCCACGCGAA GATCTTGGCC AGCTTCTATC CCAACTCTAA
SEQ ID 148
ADMGLRAVSLALGALIQCFDWQIEEAESLEESYNSRMTMKNKPLKVVCTPREDLGQLLSQL

FIG. 75

NAME D89-AB1
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 149

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1 CTTCCCTTCCT AAGTCCTAAC TAAAAATGGA GATTCAAGTTT TCTAACTTAG TTGCATTCTT
61 GCTCTTTCTC TCCAGCATCT TTCTTCTATT CAAAAAATGG AAAACCAGAA AACTAAATTT
121 GCCTCCTGGT CCATGGAAAT TACCTTTTAT TGGAAAGTTA CACCATTGGG CTGTGGCAGG
181 TCCACTTCCT CACCATGGCC TAAAAAATTT AGCCAAACGC TATGGTCCTC TTATGCATTT
241 ACAACTTGGA CAAATTCCTA CACTCATCAT ATCATCACCT CAAATGGCAA AAGAAGTACT
301 AAAAATCAC GACCTCGCTT TTGCCACTAG ACCAAAGCTT GTCGCGGCCG ACATCATTTCA
361 CTACGACAGC ACGGACATAG CATTTTCTCC GTACGGTGAA TACTGGAGAC AAATTCGTAA
421 AATTTGCATA TTGGAATCTT TGAGTGCCAA GATGGTCAA TTTTCTAGCT CGATTGCGCA
481 AGATGAGCTC TCGAAGATGC TCTCATCTAT ACGAACGACA CCCAATCTTA CAGTCAATCT
541 TACTGACAAA ATTTTTTGGT TTACGAGTTC GGTAACCTGT AGATCAGCTT TAGGGAAGAT
601 ATGTGGTGAC CAAGACAAAT TGATCATTTT TATGAGGGAA ATAATATCAT TGGCAGGTGG
661 ATTTAGTATT GCTGATTTTT TCCCTACATG GAAAATGATT CATGATATTG ATGGTTCGAA
721 ATCTAACTG GTGAAAGCAC ATCGTAAGAT TGATGAAATT TTGGGAAATG TTGTTGATGA
781 GCACAAAAAG AACAGAGCAG ATGGCAAGAA GGGTAATGGT GAATTTGGTG GTGAAGATTT
841 GATTGATGTA TTGTAAAGAG TTAGAGAAAG TGGAGAAGTT CAAATTCCTA TCACAAATGA
901 CAATATCAAA TCAATATTAA TCGACATGTT CTCTGCAGGA TCTGAAACAT CATCGACGAC
961 TATAATTTGG GCATTAGCTG AAATGATGAA GAAACCAAGT GTTTTAGCAA AGGCACAAGC
1021 TGAAGTAAGG CAAGCTTTGA AGGAGAAAAA AGGTTTTCOA CAGATTGATC TTGATGAGCT
1081 AAAATATCTC AAGTTAGTAA TCAAAGAAAC CTTAAGAATG CACCTCCAA TTCCTCTATT
1141 AGTTCCTAGA GAATGTATGG AGGATACAAA GATTGATGGT TACAATATAC CTTTCAAAAC
1201 AAGAGTCATA GTTAATGCAT GGGCAATCGG ACGAGATCCA GAAAGTTGGG ATGACCCCGA
1261 AAGCTTTATG CCAGAGAGAT TTGAGAATAG TTCTATTGAC TTTCTTGGA ATCATCATCA
1321 GTTTATACCA TTTGGTGCAG GAAGAAGGAT TTGTCCGGGA ATGCTATTTG GTTTAGCTAA
1381 TGTTGGACAA CCTTTAGCTC AGTTACTTTA TCACTTCGAT TGGAACCTCC CTAATGGACA
1441 AAGTCATGAG AATTTGACA TGACTGAGTC ACCTGGAATT TCTGCTACAA GAAAGGATGA
1501 TCTTGTTTTG ATTGCCACTC CTTATGATTC TTATTAAGCA GTAGCAGAAA TAAAAAGCCG
1561 GGGCAAACAG AAAAAA

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SEQ. ID. NO. 150

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1 MEIQFSNLVA FLLFLSSIFL LFKKWKTRKL NLPPGPWKLP FIGSLHHLAV AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVAADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMLS SIRTTPNLTN NLTDKIFWFT
181 SSVTCRSALG KICGDQDKLI IFMREIISLA GGFSIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILGNV DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNISILID
301 MFSAGSETSS TTIIWALAEM MKKPSVLAKA QAEVRQALKE KKGFOQIDLD ELKYLKLVK
361 ETLRMHPPIP LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE
421 NSSIDFLGNH HQFIPFGAGR RICPGMLFGL ANVGQPLAQL LYHFDWKLPN QOSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

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FIG. 76

NAME D89-AD2
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 151

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1 TCCTTCTTCC TTCCTAAGTC CTAACATAAA ATGGAGATTC AGTTTTCTAA CTTAGTTGCA
61 TTCTTGCTCT TTCTCTCCAG CATCTTTCTT CTATTCAAAA AATGGAAAAC CAGAAAACATA
121 AATTTGCCTC CTGGTCCATG GAAATTACCT TTTATTGGAA GTTTACACCA TTTGGCTGTG
181 GCAGGTCCAC TTCCTCACCA TGGCCTAAAA AATTTAGCCA AACGCTATGG TCCTCTTATG
241 CATTTACAAC TTGGACAAAT TCCTACACTC ATCATATCAT CACCTCAAAT GGCAAAAGAA
301 GTACTAAAAA CTCACGACCT CGCTTTTGCC ACTAGACCAA AGCTTGTCGT GGCCGACATC
361 ATTCACTACG ACAGCACGGA CATAGCATTT TCTCCGTACG GTGAATACTG GAGACAAATT
421 CGTAAATTTT GCATATTGGA ACTCTTGAGT GCCAAGATGG TCAAATTTTT TAGCTCGATT
481 CGCCAAGATG AGCTCTCGAA GATGCTCTCA TCTATACGAA CGACACCCAA TCTTACAGTC
541 AATCTTACTG ACAAATTTTT TTGGTTTACG AGTTCGGTAA CTTGTAGATC AGCTTTAGGG
601 AAGATATGTG GTGACCAAGA CAAATTGATC ATTTTTATGA GGGAAATAAT ATCATTGGCA
661 GGTGGATTTA GTATTGCTGA TTTTTCCTT ACATGGAAAA TGATTCATGA TATTGATGGT
721 TCGAAATCTA AACTGGTGAA AGCACATCGT AAGATTGATG AAATTTTGGG AAATGTTGTT
781 GATGAGCACA AAAAGAACAG AGCAGATGGC AAGAAGGGTA ATGGTGAATT TGGTGGTGAA
841 GATTTGATTG ATGTATTGTT AAGAGTTAGA GAAAGTGGAG AAGTTCAAAT TCCTATCACA
901 AATGACAATA TCAAATCAAT ATTAATCGAC ATGTTCTCTG CGGGATCTGA AACATCATCG
961 ACGACTATAA TTTGGGCATT AGCTGAAATG ATGAAGAAAC CAAGTGTTTT AGCAAAGGCA
1021 CAAGCTGAAG TAAGGCAAGC TTTGAAGGAG AAAAAAGGTT TTCAACAGAT TGATCTTGAT
1081 GAGCTAAAAT ATCTCAAGTT AGTAATCAAA GAAACCTTAA GAATGCACCC TCCAATTCCT
1141 CTATTAGTTC CTAGAGAATG TATGGAGGAT ACAAAGATTG ATGGTTACAA TATACCTTTC
1201 AAAACAAGAG TCATAGTTAA TGCATGGGCA ATCGGACGAG ATCCAGAAAG TTGGGATGAC
1261 CCCGAAAGCT TTATGCCAGA GAGATTTGAG AATAGTTCTA TTGACTTTCT TGGAATCAT
1321 CATCAGTTTA TACCATTTGG TGCAGGAAGA AGGATTTGTC CGGGAATGCT ATTTGGTTTA
1381 GCTAATGTTG GACAACCTTT AGCTCAGTTA CTTTATCACT TCGATTGGAA ACTCCCTAAT
1441 GGACAAAGTC ATGAGAATTT CGACATGACT GAGTCACCTG GAATTTCTGC TACAAGAAAG
1501 GATGATCTTG TTTTGATTGC CACTCCTTAT GATTCTTATT AAGCAGTAGC AGAAATAAAA
1561 AGCCGGGGCA AACAGAAAAA A

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SEQ. ID. NO. 152

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1 MEIQFSNLVA FLLFLSSIFL LFKKWKTRKL NLPPGPWKLP FIGSLHHLAV AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMLS SIRTTPNLTV NLTDKIFWFT
181 SSVTCRSALG KICGDQDKLI IFMREIISLA GGFSIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILGNV V DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNISILID
301 MFSAGSETSS TTIIWALAEM MKKP SVLAKA QAEVRQALKE KKGFFQIDLD ELKYLKLVK
361 ETLRMHPPIP LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE
421 NSSIDFLGNH HQFIPFGAGR RICPGMLFGL ANVGQPLAQL LYHFDWKLPN GQSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

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FIG. 77

NAME D90A-BB3
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 153

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1 CAACTGCAGT TTGAAGATAC CAACTAACCA AAATGCAGTT CTTCAGCTTG GTTTCATTT
61 TCCTATTTCT ATCTTTTCTC TTTTGTAA GGAAATGGAA GAACTCGAAT AGCCAAAGGA
121 AAAAATTGCC ACCAGGTCCA TGGAACTAC CAATACTAGG AAGTATGCTT CATATGGTTG
181 GTGGACTACC ACACCATGTC CTTAGAGATT TAGCCAAAAA ATATGGACCG CTTATGCACC
241 TTCAATTAGG TGAAGTTTCT GCAGTTGTGG TTAATTCTCC TGATATGGCA AAAGAAGTAC
301 TAAAAACTCA TGACATCGCT TTCGCGCTA GGCCTAGCCT TTTGGCCCCG GAGATTGTCT
361 GTTACAATAG GTCTGATCTT GCGTTTGGC CCTATGGCGA TTATTGGAGA CAAATGCGTA
421 AAATATGTGT CTTGGAAGTG CTCAGTGCCA AGAATGTTCG GACATATAGC TCTATTAGGC
481 GCGATGAAGT TCTTCGTCTC CTTAATTTTA TCCGGTCATC TTCTGGTGAG CCTGTTAATA
541 TTACGGAAAG GATCTTTTTG TTCACAAGCT CCATGACATG TAGATCAGCG TTTGGGCAAG
601 TATTCAAGGA GCAAGACAAA TTTATACAAC TAATTAAAGA AGTTATACTC TAGCAGGAG
661 GGTTTGATGT GGCTGACATA TTCCCTTCA ACAAGTCTCT TCATGTGCTC AGTGAATGA
721 AGGGTAAGAT TATGAATGCA CACCATAAGG TAGATGCTAT TGTGAGAAT GTCATCAACG
781 AGCACAAGAA AAATCTTGCA ATTGGGAAAA CTAATGGAGC GTTAGGAGGT GAAGATTTAA
841 TTGATGTTCT TCTAAACTT ATGAATGATG GAGGCCTTCA ATTTCTATC ACCAACGACA
901 ACATCAAAGC TATAATCTTT GACATGTTTG CTGCTGGAAC AGAGACTTCA TCGTCAACAA
961 TTGTGTGGGC TATGGTGGAA ATGGTGAAAA ATCCAACTGT ATTTGCGAAA GCTCAAGCAG
1021 AAGTAAGAGA TGCATTTAGA GAAAAAGAAA CTTTGTATGA AAATGATGTG GAGGAGCTAA
1081 ACTATCTAAA GTTAGTCATT AAAGAACTC TAAGACTTCA TCCACCGGTT CCACTTTTGC
1141 TCCCAAGAGA ATGTAGGGAA GAGACAAATA TAAACGGCTA CACTATTCCT GTAAAGACCA
1201 AAGTCATGGT TAATGTTTGG GCATTGGGAA GAGATCCAAA ATATTGGGAT GATGCAGAAA
1261 CTTTAAAGCC AGAGAGATTT GAGCAGTGCT CTAAGGATTT TGTGTAAT AATTTTGAAT
1321 ATCTTCCATT TGGTGGTGGA AGGAGGATTT GTCCAGGGAT TTCGTTTGGT TTAGCTAATG
1381 CTTATTTGCC ATTGGCTCAA TTACTTTATC ACTTTGATTG GGAACCCCC ACTGGAATCA
1441 AACCAAGCGA CTTGGACTTG ACTGAGTTGG TTGGAGTAAC TGCCGCTAGA AAAAGTGACC
1501 TTTACTTGGT TGCGACTCCT TATCAACCTC CTCAAAAC

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SEQ. ID. NO. 154

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1 MQFFSLVSIF LFLSFLFLLR KWKNSNSQRK KLPPGPWKLP ILGSMMLHVG GLPHHVLRLDL
61 AKKYGPLMHL QLGEVSAVVV TSPDMAKEVL KTHDIAFASR PSLLAPEIVC YNRSDLAFCP
121 YGDYWRQMRK ICVLEVLAK NVRTYSSIRR DEVLRLNFI RSSSGEPVNI TERIFLFTSS
181 MTCRSAFGQV FKEQDKFIQL IKEVILLAGG FDVADIFPSY KSLHVLGSMK GKIMNAHHKV
241 DAIVENVINE HKKNLAIGKT NGALGGEDLI DVLLKLMNDG GLQFPITNDN IKAIIFDMFA
301 AGTETSSSTI VWAMVEMVKN PTVFAKAQAE VRDAFREKET FDENDVEELN YLKLVIKETL
361 RLHPPVPLLL PRECREETNI NGYTIPVKTK VMNVWALGR DPKYWDDAET FKPERFEQCS
421 KDFVGNNFEY LPFGGGRRIC PGISFGLANA YLPLAQLLYH FDWELPTGIK PSDLDLTEL
481 GVTAAKSDL YLVATPYQPP QN

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FIG. 78

NAME D95-AG1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 155

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1 AAAAGATGTC TTCATTTTCC ACATCTTCTG CCACTTCTAA TTCCAAACTT CCAGTTCGAG
61 AAATCCCAGG AGACTATGGT TTCCCCTTTT TTGGAGCCAT AAAAGATAGA TATGACTACT
121 TCTACAACCT CGGCACAGAC GAATTCTTTC TTACCAAAAT GCAAAAATAC AACTCTACTG
181 TCTTTAGAAC CAACATGCCA CCAGGTCCAT TCATTGCTAA AAATCCCAA GTAAATGTTC
241 TCCTCGATGC CAAAACATTT CCCGTTCTTT TCGACAACCTC TAAAGTCGAA AAAATGAACG
301 TTCTTGATGG CACGTACGTG CCATCTACTG ATTTCTATGG CGGATATCGC CCGTGTGCTT
361 ATCTTGATCC TTCTGAGTCA ACTCATGCCA CACTTAAAGG GTTCTTTTTA TCTTTAATCT
421 CCCAGCTTCA TAATCAATTT ATTCCTTTAT TTAGAACCTC AATTTCTGGT CTTTTCGCAA
481 ATCTTGAGAA TGAGATTTCC CAAAATGGCA AAGCGAACTT CAACAATATC AGCGACATTA
541 TGTCATTCTGA TTTTGTTTTT CGTTTGTTAT GTGACAAGAC CAGTCCCAT GACACAAATC
601 TTGGCTCTAA TGGACCAAAA CTCTTTGATA TATGGCTGTT GCCTCAACTT GCTCCATTGT
661 TTAGTCTAGG TCTAAAATTT GTGCCGAAC TTTCTGGAAGA TTTAATGTTG CATACTTTTC
721 CCTTGCCATT TTTTCTAGTG AGATCGAATT ACCAGAAGCT TTATGATGCT TTTAGCAAGC
781 ATGCCGAAAAG TACACTGAAT GAAGCAGAGA AGAATGGGAT CAAAAGAGAC GAAGCATGCC
841 ACAACTTAGT TTTTCTTGCA GGTTCATG CTTATGGTGG GATGAAAGTT TTATCCCTG
901 CACTGATAAA GTGGGTCGCC AATGGAGGAA AGAGTTTACA CACTCGGCTG GCAAATGAAA
961 TCAGGACAAT TATCAAAGAA GAATGTGGGA CCATAACTCT ATCAGCAATC AACAAGATGA
1021 GTTTAGTAAA ATCAGTAGTG TATGAAGTAT TAAGAATTGA ACCTCCAGTT CCATTCCAAT
1081 ATGGTAAAGC CAAAGAAGAT ATCATAATCC AAAGCCATGA TTCAACTTTC TTAGTCAAGA
1141 AAGGTGAAAT GATCTTTGGA TATCAGCCTT TTGCTACAAA AGATCCAAAG ATTTTGTGACA
1201 AACCAGAGGA GTTTATTCCG GAGAGTTCA TGGCCGAAGG GGAAAAATTA TTAAAGTATG
1261 TGTATTGGTC AAATGCAAGA GAGACAGATG ATCCAACGGT GGACAACAAA CAATGCCCAG
1321 CGAAAAATCT TGTCGTGCTT TTGTGCAGGT TGATGTTGGT GGAGGTTTTC ATGCGTTACG
1381 ACACATTCAC AGTGGAGTCA ACAAAGCTCT TTCTTGGGTC ATCAGTAACG TTCACGACTC
1441 TGGAAAAAGC GACATGAGTT TCAGATATCT TAATTGTAGG CTGCAAATAA TAATGTGGTC
1501 ATTCTGCAA TTATTGTACT TGTGCTGATG

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SEQ. ID. NO. 156

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1 MSSFSTSSAT SNSKLPVREI PGDYGFPPFFG AIKDRYDYFY NLGTDEFFLT KMQKYNSTVF
61 RTNMPPGPFI AKNPKVIVLL DAKTFPVLFD NSKVEKMNVL DGTYPSTDF YGGYRCPAYL
121 DPSESTHATL KGFFLSLISQ LHNQFIPLFR TSISGLFANL ENEISQNGKA NFNINISDIMS
181 FDFVFRLLCD KTSPhDTNLG SNGPKLFEDIW LLPQLAPLFS LGLKFVPNFL EDLMLHTFPL
241 PFFLVRSNYQ KLYDAFSKHA ESTLNEAEKN GIKRDEACHN LVFLAGFNAY GGMKVLFPAL
301 IKWVANGGKS LHTRLANEIR TIIKEECGTI TLSAINKMSL VKSVVYEVLR IEPPVPFQYG
361 KAKEDIIIQS HDSTFLVKKG EMIFGYQPFA TKDPKIFDKP EEFIPERFMA EGEKLLKYVY
421 WSNARETDDP TVDNKQCPAK NLVLLCRLM LVEVFMRYDT FTVESTKLFL GSSVTFTTLE
481 KAT

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FIG. 79

NAME D96-AB6
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 157

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1 CCAAAAATGG AGCTTCAATC TTCTCCTTTC AATTTAATTT CTTTGTTTCCT CTTCTTTTCT
61 TTTTCATTTTA TTCTAGTGAA GAAATGGAAT GCCAAAATCC CAAAGTTACC TCCAGGTCGG
121 TGGAGGCTTC CCTTTATTGG AAGCCTCCAT CACTTGAAGG GAAAACCTCC ACACCATAAT
181 CTTAGAGATC TAGCGCGAAA ATATGGGCCT CTCATGTACT TACAACTCGG AGAAATTCCT
241 GTAGTTGTAA TATCTTCGCC ACGTGTAGCA AAAGCTGTAC TAAAACTCA TGATCTCGCT
301 TTTGCAACTA GACCACGATT CATGTCCTCA GACATTGTGT TTTACAAAAG CAGGGACATC
361 TCTTTTGCCC CATTTGGTGA TTACTGGAGA CAGATGCGTA AAATATTGAC TCAGGAACCTC
421 CTGAGTAACA AGATGCTCAA GTCATATAGC TTAATCCGAA AGGATGAGCT CTCGAAGCTC
481 CTCTCATCGA TTCGTTTGGA AACAGGTTCT GCAGTGAACA TAAATGAAAA GCTTCTCTGG
541 TTTACGAGCT GCATGACCTG TAGATTAGCC TTTGGAAAAA TATGCAATGA TCGGGATGAG
601 TTGATCATGC TAATTAGGGA GATATTAACA TTATCAGGAG GATTTGATGT GGGTGATTTG
661 TTCCCTTCCT GGAAATTACT TCATAATATG AGCAACATGA AAGCTAGGTT GACGAATGTA
721 CACCACAAGT ATGATTTAGT TATGGAGAAC ATCATCAATG AGCACCAAGA GAATCATGCA
781 GCAGGGATAA AGGGTAACAA CGAGTTTGGT GGCGAAGATA TGATCGATGC TCTACTGAGG
841 GCTAAGGAGA ATAATGAGCT TCAATTTCTT ATCGAAAATG ACAACATGAA AGCAGTAATT
901 CTGGACTTGT TTATTGCTGG AACTGAACT TCATATACTG CAATTATATG GGCACATCA
961 GAATTGATGA AGCACCCAAG TGTGATGGCC AAGGCACAAG CTGAAGTGAG AAAAGTCTTC
1021 AAAGAAAATG AAAATTTTGA CGAAAATGAT CTTGACAAGT TGCCATACTT AAAATCAGTG
1081 ATTAAAGAAA CACTAAGGAT GCACCCTCCA GTTCCTTTGT TAGGGCCTAG AGAATGCAGG
1141 GACCAAACAG AGATCGATGG CTACACTGTA CCTATTAAAG CTAGAGTTAT GGTTAATGCT
1201 TGGGCGATAG GAAGAGATCC TGAAAGTTGG GAAGATCCTG AAAGTTTCAA ACCGGAGCGA
1261 TTTGAAAATA CTTCTGTTGA TCTTACAGGA AATCACTATC AGTTCATTCC TTTCGGTTCA
1321 GGAAGAAGAA TGTGTCCAGG AATGTCGTTT GGTTTAGTTA ACACAGGGCA TCCTTTAGCC
1381 CAGTTGCTCT ATTGCTTTGA CTGGAACTC CCTGACAAGG TTAATGCAAA TGATTTTCGC
1441 ACTACTGAAA CAAGTAGAGT TTTTGCAGCA AGCAAAGATG ACCTCTACTT GATTCCCACA
1501 AATCACAGGG AGCAAGAATA GCTTAATTTA ATGGAGTTCT TGGAAGAATT AAAGAAGAAG
1561 GGCTATATAG GTGAGATTTT TTGTATGGTT GCA

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SEQ. ID. NO. 158

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1 MELQSSPFNL ISLFLFFSFH FILVKKWNAK IPKLPPGPWR LPFIGSLHHL KGKLPHHNLR
61 DLARKYGPLM YLQLGEIPVV VISSPRVAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APFGDYWRQM RKILTQELLS NKMLKSYSLI RKDELSKLLS SIRLETGS AV NINEKLLWFT
181 SCMTCRLAFG KICNDRDELI MLIREILTLS GGFDVGDLP SWKLLHNMSN MKARLTNVHH
241 KYDLVMENII NEHQENHAAG IKGNNEFGGE DMIDALLRAK ENNELQFPIE NDNMKAVILD
301 LFIAGTETSY TAIIWALSEL MKHPSVMAKA QAEVRKVFKE NENFDENDLD KLPYLKSVIK
361 ETLRMHPPVP LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE
421 NTSVDLTGNH YQFIPFGSGR RMCPGMSFGL VNTGHPLAQL LYCFDWKLPD KVNANDFRTT
481 ETSRVFAASK DDLYLIPTNH REQE

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FIG. 80

NAME D96-AC2
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 159

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1 CTTCTTCCAA AAATGGAGCT TCAATCTTCT CCTTCAATT TAATTTCTTT GTTCCTCTTC
61 TTTTCTTTTC TTTTATTCT AGTGAAGAAA TGGAAATGCCA AAATCCCAAA GTTACCTCCA
121 GGTCCGTGGA GGCTTCCCTT TATTGGAAGC CTCCATCACT TGAAGGGAAA ACTTCCACAC
181 CATAATCTTA GAGATCTAGC GCGAAAATAT GGACCTCTCA TGTACTTACA ACTCGGAGAA
241 ATTCTGTAG TTGTAATATC TTCGCCACGT GTAGCAAAAG CTGTACTAAA AACTCATGAT
301 CTCGCTTTTG CAACTAGACC ACGATTCTG TCCTCAGACA TTGTGTTTTA CAAAAGCAGG
361 GACATCTCTT TTGCCCCATT TGGTGATTAC TGGAGACAGA TGCCTAAAAT ATTGACTCAG
421 GAACTCCTGA GTAACAAGAT GCTCAAGTCA TATAGCTTAA TCCGAAAGGA TGAGCTCTCG
481 AAGCTCCTCT CATCGATTCTG TTTGGAAACA GGTTCCTGCAG TGAACATAAA TGAAAAGCTT
541 CTCTGGTTTA CGAGCTGCAT GACCTGTAGA TTAGCCTTTG GAAAAATATG CAATGATCGG
601 GATGAGTTGA TCATGCTAAT TAGGGAGATA TTAACATTAT CAGGAGGATT TGATGTGGGT
661 GATTTGTTCC CTTCTGGAA ATTACTTCAT AATATGAGCA ACATGAAAG TAGGTTGACG
721 AATGTACACC ACAAGTATGA TTTAGTTATG GAGAACATCA TCAATGAGCA CCAAGAGAAT
781 CATGCAGCAG GGATAAAGGG TAACAACGAG TTTGGTGGCG AAGATATGAT CGATGCTCTA
841 CTGAGGGCTA AGGAGAATAA TGAGCTTCAA TTTCTATCG AAAATGACAA CATGAAAGCA
901 GTAATTCTGG ACTTGTTTAT TGCTGGAAC TAACTTCAT ATACTGCAAT TATATGGGCA
961 CTATCAGAAAT TGATGAAGCA CCCAAGTGTG ATGGCCAAGG CACAAGCTGA AGTGAGAAAA
1021 GTCTTCAAAG AAAATGAAAA TTTGACGAA AATGATCTTG ACAAGTTGCC ATACTTAAAA
1081 TCACTGATTA AAGAAACACT AAGGATGCAC CCTCCAGTTC CTTTGTTAGG GCCTAGAGAA
1141 TGCAGGGACC AAACAGAGAT CGATGGCTAC ACTGTACCTA TTAAAGCTAG AGTTATGGTT
1201 AATGCTTGGG CGATAGGAAG AGATCCTGAA AGTTGGGAAG ATCCTGAAAG TTTCAAACCG
1261 GAGCGATTG AAAATACTTC TGTTGATCTT ACAGGAAATC ACTATCAGT CATTCCTTTC
1321 GGTTCAAGAA GAAGAATGTG TCCAGGAATG TCGTTTGGTT TAGTTAACAC AGGGCATCCT
1381 TTAGCCCACT TGCTCTATTG CTTTGACTGG AAACCTCCCTG ACAAGGTAA TGCAAATGAT
1441 TTTGCGACTA CTGAAACAAG TAGAGTTTTT GCAGCAAGCA AAGATGACCT CTACTTGATT
1501 CCCACAAATC ACAGGGAGCA AGAATAGCTT AATTTAATGG AGTTCTTGGA AGAATTAAAG
1561 AAGAAGGGCT ATATAGGTGA GATTTTTTGT ATGGTTGCA

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SEQ. ID. NO. 160

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1 MELQSSPFNL ISLFLFFSFL FILVKKWNAK IPKLPPGPWR LPFIGSLHHL KGKLPHHNLK
61 DLARKYGPLM YLQLGEIPVV VISSPRVAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APFGDYWRQM RKILTQELLS NKMLKSYSLI RKDELSKLLS SIRLETGSVA NINEKLLWFT
181 SCMTCRLAFG KICNDRDELI MLIREILTLS GGFDVGDLP SWKLLHNMSN MKARLTNVHH
241 KYDLVMENII NEHQENHAAG IKGNNEFGGE DMIDALLRAK ENNELQFPIE NDNMKAVILD
301 LFIAGTETSY TAIIWALSEL MKHPSVMAKA QAEVRKVFKE NENFDENDLD KLPYLKSVIK
361 ETLRMHPPVP LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE
421 NTSVDLTGNH YQFIPFGSGR RMCPGMSFGL VNTGHPLAQL LYCFDWKLPD KVNANDFRFT
481 ETSRVFAASK DDLYLIPTNH REQE

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FIG. 81

NAME D98-AA1
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 161

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1 CTTTCTTTCT TGTACCGAGA TGGAGTTTCA ACACTTGGTT TCGTTCTTGC TATTCATCTC
61 CTTCTAATTC CTTCTAATTC AAAAATGGAG GAAATCGAAA AAGCTGCCAC CTGGTCCGTG
121 GAGGCTACCT ATTATTGGAA GTGTGCATCA CTTGACAAGT GGAGTACCAC ATCGAGTTCT
181 CAGAAATTTA TCACAAAAAT TTGGCCCGAT CATGTACTTG CAGCTCGGGG AAGTTCCCAC
241 AGTAGTTGTA TCCTCCCCAC ACATGGCCAA ACAAATTTTA AAAACTCATG ACCTCGCTTT
301 TGCATCTAGG CCAGAAATCA TGATGGGAAA AATTATTTGC TACGATTGTA AGGACATTGC
361 CTTTTCCCCG TATGGTGATT ATTGGAGACA TATGCGTAAA TTGAGCACCT TGGAAGTACT
421 TAGTGCCAAG ATGGTCAAGT CCTTCAGTCC AATTCGTCAA GATGAGCTCT CAAGTCTCCT
481 ATCATCCATT GAATCAATGG GAAATTTGCC AATCAACTTA GTAGAAAAAC TTTTATGGTT
541 TATGAATGCC GCGACATGTA GGTCAGCATT TGGGAAAGTG TGTAAGATC AAAAAGAGTT
601 GATAACATTG ATTCACGAG CAGAATCATT ATCTGGTGGA TTCGAGCTGG CTGATTTGTT
661 CCCTTCGAAG AAGTTTCTAC ATGGTATTAG TGGGATGCGA TCTAAACTAA TGGAAGCTCG
721 TAACAAGATA GACGCAGTCT TGGACAACAT TATCAATGTG CACAGAGAGA ATCGGGCAAA
781 TGGAAATAGT TGTAATGGTG AGTCTGGAAC TGTAATTTT ATCGATGTTT TTCTAAGGGT
841 CATGGAGAGT GGCGAATTAC CATTTCGGAT AGAAAATGAC AACATCAAAG CAGTTATTCT
901 TGACATGTTT GTAGCAGGAT CTGACACATC ATCTTCAACC GTTATTTGGG CATTAAACAGA
961 AATGATGAAG AATCCAAAAG TCATGGCTAA AGCACAAGCT GAAGTGAGAG AAGCTTTTAA
1021 AGGAAAGAAA GCATGTGATG AGGATACTGA TCTTGAAAAG CTTTATTACC TAAATTTAGT
1081 GATCAAAGAG ACACTCCGAT TACACCCTCC AACTCCTCTA CTTGTCCCGC GAGAATGCAG
1141 GGAGGAAACA GAGATAGAAG GATTCACTAT ACCATTGAAA AGCAAAGTCT TGGTAAACGT
1201 ATGGGCAATT GGAAGAGATC CCGAGAATTG GAAAAATCCT GAATGTTTTA TACCAGAGAG
1261 ATTCGAAAAT AGTTCTATTG AGTTTACTGG AAATCATTTT CAACTTCTTC CGTTTGGCGC
1321 TGGAAAGACGA ATTTGTCCAG GAATGCAATT TGGTTTGGCT CTTGTTACTC TGCCATTGGC
1381 TCATTTGCTT CACAATTTTG ATTGGAACT TCCCGAAGGA ATTAATGCAA GGGATTTGGA
1441 CATGACAGAG GCAAATGGGA TATCTGCTAG AAGAGAAAAA GATCTTTACT TGATTGCTAC
1501 TCCTTATGTA TCACCTCTTG ATTAACCTCTG AAATTTTGCT TTAATGCTGC TTGCTTGCTT
1561 CACT

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SEQ. ID. NO. 162

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1 MEFQHLVSFL LFISFIFLLI QKWRKSKKLP PGPWRLPIIG SVHHLTSGVP HRVLRNLSQK
61 FGPIMYLQLG EVPTVVVSSP HMAKQILKTH DLAFASRPEI MMGKIICYDC KDIAFSPYGD
121 YWRHMRKLST LELLSAKMVK SFSPIRQDEL SLLSSIESM GNLPINLVEK LLWFMNAATC
181 RSAFGKVCKD QKELITLIQR AESLSGGFEL ADLFPSKKFL HGISGMRSKL MEARNKIDAV
241 LDNIINVHRE NRANGNSCNG ESGTVDFIDV FLRVMESEL PFPIENDNIK AVILDMFVAG
301 SDTSSSTVIW ALTEMMKNPK VMAKAQAEVR EAFKGGKACD EDTDLEKLHY LNLVIKETLR
361 LHPPTPLLVP RECREETEIE GFTIPLKSKV LVNVWAIGRD PENWKNPECF IPERFENSSI
421 EFTGNHFQLL PFGAGRRICP GMQFGLALVT LPLAHLHNF DWKLPEGINA RDLDMTEANG
481 ISARREKDLY LIATPYVSPL D

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FIG. 82

NAME D98-AG1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 163

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1 CTTTCTTGTA CCGAGATGGA GTTTC AACAC TTGGTTTCGT TCTTGCTATT CATCTCCTTC
61 ATCTTTCTTC TAATTC AAAA ATGGAGGAAA TCGAAAAAGC TGCCACCTGG TCCGTGGAGG
121 CTACCTATTA TTGGAAGTGT GCATCACTTG ACAAGTGGAG TACCACATCG AGTTCTCAGA
181 AATTTATCAC AAAAATTTGG CCCGATCATG TACTTGCAGC TCGGGGAAGT TCCCACAGTA
241 GTTGTATCCT CCCACACAT GGCCAAACAA ATTTTAAAAA CTCATGACCT CGCTTTTGCA
301 TCTAGGCCAG AAATCATGAT GGGAAAAATT ATTTGCTACG ATTGTAAGGA CATTCCTTTT
361 TCCCCGTATG GTGATTATTG GAGACATATG CGTAAATTGA GCACCTTGGA ACTACTTAGT
421 GCCAAGATGG TCAAGTCCTT CAGTCCAATT CGTCAAGATG AGCTCTCAAG TCTCCTATCA
481 TCCATTGAAT CAATGGGAAA TTTGCCAATC AACTTAGTAG AAAAATTTT ATGGTTTATG
541 AATGCCGCGA CATGTAGGTC AGCATTGGG AAAGTGTGTA AAGATCAAAA AGAGTTGATA
601 ACATTGATTC AACGAGCAGA ATCATTATCT GGTGGATTCT AGCTGGCTGA TTTGTTCCCT
661 TCGAAGAAGT TTCTACATGG TATTAGTGGG ATGCGATCTA AACTAATGGA AGCTCGTAAC
721 AAGATAGACG CAGTCTTGGA CAACATTATC TGGAACTGTA GATTTTCATCG ATGTTTTTCT AAGGGTCATG
781 AATAGTTGTA ATGGTGAGTC TGGAACTGTA GATTTTCATCG ATGTTTTTCT AAGGGTCATG
841 GAGAGTGGCG AATTACCATT TCCGATAGAA AATGACAACA TCAAAGCAGT TATTCTTGAC
901 ATGTTCTGTAG CAGGATCTGA CACATCATCT TCAACCGTTA TTTGGGCATT AACAGAAACG
961 ATGAAGAATC CAAAAGTCAT GGCTAAAGCA CAAGCTGAAG TGAGAGAAGC TTTTAAAGGA
1021 AAGAAAGCAT GTGATGAGGA TACTGATCTT GAAAAGCATC ATTACCTAAA TTTAGTGATC
1081 AAAGAGACAC TCCGATTACA CCCTCCAAC CTCTACTTG TCCC GCGAGA ATGCAGGGAG
1141 GAAACAGAGA TAGAAGGATT CACTATACCA TTGAAAAGCA AAGTCTTGGT TAACGTATGG
1201 GCAATTGGAA GAGATCCCGA GAATTGGAAG AATCCTGAAT GTTTTATACC AGAGAGATTC
1261 GAAAATAGTT CTATTGAGTT TACTGGAAAT CATTTTCAAC TTCTTCCGTT TGGCGCTGGA
1321 AGACGAATTT GTCCAGGAAT GCAATTTGGT TTGGCTCTTG TTA CTCTGCC ATTGGCTCAT
1381 TTGCTTCACA ATTTTGATTG GAAACTTCCC GAAGGAATTA ATGCAAGGGA TTTGGACATG
1441 ACAGAGGCAA ATGGGATATC TGCTAGAAGA GAAAAAGATC TTTACTTGAT TGCTACTCCT
1501 TATGTATCAC CTCTTGATTA ACTCTGAAAT TTTGCTTTAA TGCTGCTTGC TTGCTTCACT

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SEQ. ID. NO. 164

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1 MEFQHLVSFL LFISFIFLLI QKWRKSKKLP PGPWRLPIIG SVHHLTSGVP HRVLRNLSQK
61 FGPIMYLQLG EVPTVVVSSP HMAKQILKTH DLAFASRPEI MMGKIICYDC KDIAFSPYGD
121 YWRHMRKLST LELLSAKMVK SFSPIRQDEL SLLSSIESM GNL PINLVEK LLWFMNAATC
181 RSAFGKVKCD QKELITLIQR AESLSGGFEL ADLFPSKKFL HGISGMRSKL MEARNKIDAV
241 LDNIINVHRE NRANGNSCNG ESGTVDFIDV FLRVMESEGL PFPIENDNIK AVILDMFVAG
301 SDTSSSTVIW ALTETMKNPK VMAKAQAEVR EAFKGGKACD EDTDLEKHHY LNLVIKETLR
361 LHPPTPLLVP RECREETEIE GFTIPLKSKV LVNVWAIGRD PENWKNPECF IPERFENSSI
421 EFTGNHFQLL PFGAGRRICP GMQFGLALVT LPLAHLHNF DWKLPEGINA RDLDMTEANG
481 ISARREKDLV LIATPYVSPL D

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FIG. 83

NAME D100-BE2
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 165

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1 CAAAAACAAA ATTCCAATGG TTAACATGTT CACTCCAATT ATATACGCTC CTCTCCTTTT
61 AGCTTTTTTAC ATTATCACAA AACATTTCTT ACGCAAATC AGAAATAATC CACCAGCTCC
121 ATTTCTTACT TTCCCCTTTA TTGGCCATCT TTATCTCTTC AAAAAACCAC TTCAACGTAC
181 CTTAGCCAAA ATCTCCGAAC GTTATGGCTC TGTTCCTCTA CTCGAATTCG GTTCACGAAA
241 AGTACTTTTG GTTCTTCAC CATCTGCAGC TGAAGAATGC TTAACAAAAA ACGATATTAT
301 TTTCGCGAAT CGTCCTCTTT TGATGGCTGG AAAACATCTT GGATATAATT TTACATCTTT
361 GGCTTGGAGT TCGTACGGAG ATCATTGGAG AAATCTGCGA AGGATTACTT CAGTTGAGAT
421 GTTTTCGACT CATCGTCTTC AAATGCTACA TGGGATTTCGT ATTGATGAAG TGAAATCTAT
481 GGTAAAGAGG CTCAATTCCT CTGCCATAGC TGAAAAATCT GTGGATATGA AGTCTATGTT
541 TTTTGAGCTG ATGCTCAATG TTATGATGAG GACAATTGCT GGAAAAAGAT ATTACGGTGA
601 GAATGTGGAG GACATTGAGG AAGCTACGAG ATTCAAAGGT TTGGTGCAAG AGACTTTTCAG
661 GATTGGCGGG GCGACGAATA TTGGCGACTT TTTGCCGGCG TTGAAGTTAT TGGTGAGGAA
721 ATTTGAGAAA AGTTTAATTG TGTTGCAAGA GAACAGAGAT GAGTTTATGC AGGAATTAAT
781 TAAAGATTGC AGAAAAAGAA TGGAGAAAGA AGGTACTGTT ACTGATTGAG AAATTGAAGG
841 GAACAAGAAA TGTTTAATTG AAGTTTTGTT AACACTACAA GAAAATGAAC CGGAATACTA
901 CAAAGATGAA ATCATCAGAA GCCTTATGCT TGTTCTATTA TCAGCTGGTA CAGATACTTC
961 AGTTGGGACA ATGGAATGGG CTTTATCATT AATGTTAAAC CACCCTGAAA CTCTGAAGAA
1021 AGCACAAGCT GAAATTGATG AACATATAGG ACATGAACGT TTAGTGGACG AGTCGGACAT
1081 CAACAACCTA CCTTACCTAC GTTGATAAT CAACGAGACA TTCCGAATGT ACCCTGCAGG
1141 ACCACTACTA GTCCACACG AGTCGTGAGA GGAAACCACC GTAGGAGGCT ACCGTGTACC
1201 CGGAGGAACC ATGTTACTTG TGAATTTGTG GGCAATTCAC AATGATCCAA AGCTATGGGA
1261 TGAACCAAGA AAGTTTAAAC CAGAAAGATT TCAAGGACTA GATGGTGTGA GAGATGGTTA
1321 CAAAATGATG CCTTTTGTT CTGGACGAAG GAGTTGTCCT GGAGAAGGAT TGGCTGTTTCG
1381 AATGGTTGCC TTGTCATTGG GATGTATTAT TCAATGTTTT GATTGGCAAC GAATCGGCGA
1441 AGAATTGGTT GATATGACTG AAGGAACTGG ACTTACTTTG CCTAAAGCTC AACCTTTGGT
1501 GGCCAAGTGT AGCCACGAC CTAATATGGC TAATCTTCTC TCTCAGATTT GA

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SEQ. ID. NO. 166

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1 MVNMFPIIY APLLLAFYII TKHFLRKLRN NPPAPFLTFP FIGHLYLFKK PLQRTLAKIS
61 ERYGSVLLLE FGSRKVLLVS SPSAAEECLT KNDIIFANRP LLMAGKHLGY NFTSLAWSSY
121 GDHWRNLRR I TSVEMFSTHR LQMLHGIRID EVKSMVKRLN SSAIAEKSVD MKSMFFELML
181 NVMMRTIAGK RYGENVEDI EEATRFKGLV QETFRIGGAT NIGDFLPALK LLVRKLEKSL
241 IVLQENRDEF MQELIKDCRK RMEKEGTVTD SEIEGNKKCL IEVLLTLQEN EPEYYKDEII
301 RSLMLVLLSA GTDTSVGTME WALSLMLNHP ETLKKAQAEI DEHIGHERLV DESDINNLPY
361 LRCIINETFR MYPAGPLLVP HESSEETTVG GYRVPGGTML LVNLWAIHND PKLWDEPRKF
421 KPERFQGLDG VRDGYKMMPF GSGRRSCPGE GLAVRMVALS LGCIIQCFDW QRIGEELVDM
481 TEGTGLTLPK AQLPVAKCSP RPKMANLLSQ I

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FIG. 84

NAME D100A-AC3
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 167

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1 CAAAAACAAA ATTCCAATGG TTAACATGTT CACTCCAATT ATATACGCTC CTCTCCTTTT
61 AGCTTTTTTAC ATTATCACAA AACATTTCTT ACGCAAACCTC AGAAATAACC CACCAGCTCC
121 ATTTCTTACT TTCCCCTTTA TTGGCCATCT TTATCTCTTC AAAAAACCAC TTCAACGTAC
181 CTTAGCCAAA ATCTCCGAAC GTTATGGCTC TGTTCCTTCTA CTCGAATTCG GTTCACGAAA
241 AGTACTTTTG GTTCTTTCAC CATCTGCAGC TGAAGAATGC TTAACAAAAA ACGATATTAT
301 TTTGCGGAAT CGTCCTCTTT TGATGGCTGG AAAACATCTT GGATATAATT TTAATTCTTT
361 GGCTTGGAGT TCGTACGGAG ATCACTGGAG AAATCTTCGT AGGATTACTT CAGTTGAGAT
421 GTTTTCGACT CATCGTCTTC AAATGCTACA TGGGAATTCGT ATTGATGAAG TGAATCTAT
481 GGTTAAGAGG CTCAATTCCT CTGCCATAGC TGAATAATCT GTGGATATGA AGTCTATGTT
541 TTTTGAGCTG ATGCTCAATG TTATGATGAG GACAATTGCT GGAAAAAGAT ATTACGGTGA
601 GAATTGGGAG GACATTGAGG AAGCTACGAG ATTCAAAGGT TTGGTGCAAG AGACTTTCAG
661 GATTGGCGGG GCGACGAATA TTGGCGACTT TTTGCCGGCG TTGAAGTTAT TGGTGAGGAA
721 ATTGGAGAAA AGTTTAATTG TGTTGCAAGA GAACAGAGAT GAGTTTATGC AGGAATTAAT
781 TAAAGATTGC AGAAAAAGAA TGGAGAAAGA AGGTACTGTT ACTGATTCAG AAATTGAAGG
841 GAACAAGAAA TGTTTAATTG AAGTTTTGTT AACACTACAA GAAAATGAAC CGGAATACTA
901 CAAAGATGAA ATCATCAGAA GCCTTATGCT TGTTCTATTA TCAGCTGGTA CAGATACTTC
961 AGTTGGGACA ATGGAATGGG CTTTATCATT AATGTTAAAC CACCCTGAAA CTCTGAAGAA
1021 AGCACAAGCT GAAATTGATG AACATATAGG ACATGAACGT TTAGTGGACG AGTCGGACAT
1081 CAACAACCTA CCTTACCTAC GTTGTATAAT CAACGAGACA TTCCGAATGT ACCCTGCAGG
1141 ACCACTACTA GTCCCACACG AGTCGTCAGA GGAAACCACC GTAGGAGGCT ACCGTGTACC
1201 CGGAGGAACC ATGTTACTTG TGAATTTGTG GGCTATTCAC AATGATCCAA AGCTATGGGA
1261 TGAACCAAGA AAGTTTAAGC CAGAAAGATT TGAAGGACTA GAAGGTGTTA GAGACGGTTA
1321 CAAAATGATG CCTTTTGGTT CTGGACGAAG GAGTTGTCCT GGAGAAGGAT TGGCTATTCTG
1381 AATGGTTGCA TTGTCATTGG GATGTATTAT TCAATGCTTT GATTGGCAAC GACTTGGGGA
1441 AGGATTGGTT GATAAGACTG AAGGAAGTGG ACTTACTTTG CCTAAAGCTC AACCTTTAGT
1501 GGCCAAGTGT AGCCACGAC CTATAATGGC TAATCTTCTT TCTCAGATTT GAACATAATT
1561 GGTTTCTACC AAACATCCCC AAACATAAAT ATTATTATTG GTTACATATA CAATGTAATC
1621 AATTTTGAAC CATATTATAT CTCAATGTAT TCCTTTTTTA AAAAAAAAAA AAAAA

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SEQ. ID. NO. 168

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1 MVNMFPIIY APLLLAFYII TKHFLRKL RN NPPAPFLTFP FIGHLYLFKK PLQRTLAKIS
61 ERYGSVLLLE FGSRKVLLVS SPSAAEECLT KNDIIFANRP LLMAGKHLGY NFTSLAWSSY
121 GDHWRNL RRI TSVEMFSTHR LQMLHGIRID EVKSMVKRLN SSAIAEKSVD MKSMFFELML
181 NVMMRTIAGK RYYGENVEDI EEATRFKGLV QETFRIGGAT NIGDFLPALK LLVRKLEKSL
241 IVLQENRDEF MQELIKDCRK RMEKEGTVTD SEIEGNKKCL IEVLLTLQEN EPEYYKDEII
301 RSLMLVLLSA GTDTSVGTME WALSLMLNHP ETLKKAQAEI DEHIGHERLV DESDINNLPY
361 LRCIINETFR MYPAGPLLVP HESSEETTVG GYRVPGGTML LVNLWAIHND PKLWDEPRKF
421 KPERFEGLEG VRDGYKMMPF GSGRRSCPGE GLAIRMVALS LGCIIQCFDW QRLGEGLVDK
481 TEGTGLTLPK AQPLVAKCSP RPIMANLLSQ I

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FIG. 85

NAME D104A-AE8 (69,1755)
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 169

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1 CAACACGCTT ACTATCTCCT AAATCTCCAC TCAAAAACAA AGAAGAGAAA GATTTAAAAC
61 TAATAATTAT GAAAGAGATG GTGCAAAACA ATATGAGCAC TTCTCTTCTT GAAACTTTAC
121 AAGCTACGCC CATGATATTC TACTTCATCG TCCCTCTCTT CTGCTTATTC CTTCTCTCCA
181 AATCTCGCCG TAAACGTTTG CCTCCAGGTC CAACTGGCTG GCCTCTCATT GGTAACATGA
241 TGATGATGGA CCAGTTAACT CACCGTGGCC TTGCCAAACT AGCCCCAAAA TATGGTGGTG
301 TTTTTCACCT TAAAATGGGT TATGTTTACA AAATTGTAGT CTCTGGTCCA GACGAAGCTC
361 GCCAAGTATT ACAGGAACAC GACATCATAT TTTCGAACCG TCCAGCGACC GTAGCCATAA
421 GTTACCTAAC ATATGACAGG GCAGACATGG CTTTTGCTGA CTATGGACTC TTCTGGCGGC
481 AGATGAGAAA ACTATGTGTA ATGAAACTCT TCAGCCGCAA ACGAGCTGAG TCATGGGACT
541 CAGTTCGAGA CGAAGCGGAT TCCATGGTTA GAATTGTAAC AACCAACACA GGCACAGCTG
601 TTAACCTTAGG TGAACCTGTT TTCAGTCTCA CTCGTAATAT TATCTACAGA GCTGCTTTTG
661 GAACCTGTTC TGAAGATGGA CAAGGCGAGT TCATTAAAAT TATGCAAGAG TTTTCGAAGC
721 TATTTGGTGC TTTCAATATA GCTGATTTTA TTCCATGGCT AGGGTGGGTT GGTAAGCAGA
781 GTCTAAATAT TAGACTTGCT AAGGCTAGAG CGTCGCTTGA TGGGTTTATT GATTCGATTA
841 TTGATGACCA TATTATTAGA AAGAAAGCTT ATGTTAATGG CAAAATGAT GGAGGTGATC
901 GAGAACTGA TATGGTGGAT GAGCTTTTAG CTTTTTACAG TGAGGAAGCA AAAGTAACTG
961 AGTCCGAAGA TTTGCAGAAT GCTATCAGAC TTACTAAGGA TAATATCAAA GCTATCATCA
1021 TGGATGTAAT GTTTGGAGGG ACAGAAACAG TGGCTTCTGC AATAGAATGG GCCATGGCAG
1081 AGCTTATGAG GAGTCCTGAA GATCTTAAAA AGGTACAACA AGAGCTGGCT AACGTTGTTG
1141 GACTCAACAG AAAAGTTGAA GAATCTGACT TTGAAAAATT AACATACTTA AGATGTTGTC
1201 TAAAGAAAC TCTACGACTT CACCTCCAA TCCCTCTCCT CCTCCATGAG ACCGCCGAGG
1261 AATCCACCGT CTCCGGCTAC CATATTCCGG CAAAGTCACA TGTTATTATA AATTCATTTG
1321 CCATTGGGCG TGACAAAAAT TCATGGGAAG ATCCTGAAAC TTATAAACCA TCTAGGTTTC
1381 TCAAAGAAGG TGTACCAGAT TTAAAGGAG GTAATTTTGA GTTTATACCA TTTGGGTCGG
1441 GTCGGCGGTC TTGCCCCGGT ATGCAACTTG GGCTTTATGC ATTGGAAATG GCTGTGGCCC
1501 ATCTTCTTCA TTGTTTTACT TGGGAATTGC CAGATGGTAT GAAACCAAGT GAGCTTAAAA
1561 TGGATGATAT TTTTGGACTC ACTGCTCCAA GAGCTAATCG ACTCGTGGCT GTGCCTACTC
1621 CACGTTTGTT GTGTCCCTT TATTAATTGA AGAAAAAAGG TGGGGCTTTT ACTTGATCA
1681 AAGAGTGGTG CTTGTGATTT TTCCACCTTT TGGTTAAATA TACGAATTAT TATGATATAC
1741 GAATTCCTTG GCACA

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SEQ. ID. NO. 170

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1 MKEMVQNNMS TSLLETLOAT PMIFYFIVPL FCLFLLSKSR RKRLPPGPTG WPLIGNMMMM
61 DQLTHRGLAK LAQKYGGVFH LKMGYVHKIV VSGPDEARQV LQEHDIIFSN RPAITVAISYL
121 TYDRADMAFA DYGLFWRQMR KLCVMKLFSS KRAESWDSVR DEADSMVRIV TTNTGTAVNL
181 GELVFSLTRN IYRAAFGTC SEDGQGEFIK IMQEFSLFG AFNIADFIPW LGWVGKQSLN
241 IRLAKARASL DGFIDSIDD HIIRKKAYVN GKNDGGDRET DMVDELLAFY SEEAKVTESE
301 DLQNAIRLTK DNIKAIIMDV MFGGTETVAS AIEWAMAELM RSPEDLKKVQ QELANVVGLN
361 RKVEESDFEK LTYLRCLLKE TLRHLHPIPL LLHETAEEST VSGYHIPAKS HVIINSFAIG
421 RDKNSWEDPE TYKPSRFLKE GVPDFKGGNF EFIPFGSGRR SCPGMQLGLY ALEMAVAHLL
481 HCFTWELPDG MKPSELKMD DIFGLTAPRAN RLVAVPTPRL LCPLY

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FIG. 86

NAME D105-AD6
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 171

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1 TGTGCTTGTG AGTGTGGGAG AAGGCCTTCA ATATGGAGAT ACCATATTAC AGCTTAAAAA
61 TTGCAATTTT TTCATTTGCA ATTATCTTTG TACTAAGATG GGCATGGAAA ATCTTGAATT
121 ATGTGTGGTT AAAACCAAAA GAATTGGAGA AATACCTCAG ACAGCAGGGT TTCAAAGGAA
181 ACTCTTACAA ATTCTTGTTT GGGGATATGA AAGAGATGAA GAAAATGGGT GAAGAAGCTA
241 TGTCTAAGCC AATCAATTTT TCTCATGACA TGATTTGGCC TAGAGTTATG CCATTCATCC
301 ACAAAACCAT CACCAATTAT GGTAAGAATT GTATTGTGTG GTTTGGGCCA AGACCAGCAG
361 TCCTGATCAC AGACCCGGAA CTTGTAAAGG AGGTGCTAAC GAAGAATTTT GTCTATCAGA
421 AGCCGCTTGG CAATCCACTC ACAAAGTTGG CAGCAACTGG AATTGCAGGC TATGAAACAG
481 ATAAATGGGC TACACATAGA AGGCTTCTCA ATCCTGCTTT TCACCTTGAC AAGTTGAAGC
541 ATATGCTACC TGCATTCCAA TTTACTGCTA GTGAGATGTT GAGCAAATTG GAGAAAGTTG
601 TTTCACCAAA CGGAACAGAG ATAGATGTGT GGCCATATTT ACAAACCTTG ACAAGTGATG
661 CCATTTCAAG AACTGCGTTT GGAAGTAGTT ATGAAGAAGG AAGAAAGATT TTTGACCTTC
721 AAAAAGAACA ACTTTCATA ATTCTAGAAG TTTCACGCAC AATATATATT CCAGGATGGA
781 GGTTTTTGCC AACGAAAAGG AACAAAAGGA TGAAGCAAAT ATTTAATGAA GTACGAGCAC
841 TGGTATTTGG AATTATTAAG AAAAGGATGA GTATGATTGA AAATGGAGAA GCACCTGATG
901 ATTTATTGGG AATATTATTG GCATCCAATT TAAAAGAAAT CCAACAACAT GGAAACAACA
961 AGAAATTTGG TATGAGTATT GATGAGGTGA TTGAAGAGTG TAAACTCTTC TATTTTGCTG
1021 GGCAAGAGAC TACTTCATCT TTACTTGTAT GGACTATGAT TTTGTTGTGC AAATATCCTA
1081 ATTGGCAAGA TAAAGCTAGA GAAGAGGTTT TGCAAGTGTT TGGGAGTAGG GAAGTTGACT
1141 ATGACAAGTT GAATCAGCTA AAAATAGTAA CTATGATCTT AAACGAGGTC TTAAGGTTGT
1201 ATCCAGCAGG ATATGTGATT AATCGAATGG TAAACAAAGA AACAAAGTTA GGGAAATTTG
1261 GTTTACCAGC CGGCGTACAG CTCGTGTTAC CAACAATGTT GTTGCAACAT GATACTGAAA
1321 TATGGGGAGA TGATGCAATG GAGTTCAATC CAGAGAGATT TAGTGATGGA ATATCCAAAG
1381 CAACAAAAGG AAAACTTGTG TTTTTTCCAT TTAGTTGGGG TCCAAGAATA TGTATTGGGC
1441 AAAATTTTGC TATGTTAGAG GCTAAAATGG CAATGGCTAT GATTCTGAAA ACCTATGCAT
1501 TTGAACCTCT TCCATCTTAT GCTCATGCTC CTCATCCACT ACTACTTCAA CCTCAATATG
1561 GTGCTCAATT AATTTTGTAC AAGTTGTAGA TATGGTCAAT TTGGAACCTG TTATGGAAC
1621 TTTATCATTG TAATCAACCA TATTGAGGGA ACATGGTTTG AGGTTAAATC CTCGTGTGTG
1681 TGTC

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SEQ. ID. NO. 172

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1 MEIPYYSLKI AISSFALFV LRWAWKILNY VWLKPKELEK YLRQQGFKGN SYKFLFGDMK
61 EMKKMGEEAM SKPINFSHDM IWPRVMPFIH KTITNYGKNC IVWFGPRPAV LITDPELVKE
121 VLTKNFVYQK PLGNPLTKLA ATGIAGYETD KWATHRRLN PAFHLDKLBH MLPAFQFTAS
181 EMLSKLEKVV SPNGTEIDVW PYLQTLTSDA ISRTAFGSSY EEGRKIFDLQ KEQLSLILEV
241 SRTIYIPGWR FLPTKRNRKM KQIFNEVRAL VFGIIKRMS MIENGEAPDD LLGILLASNL
301 KEIQQHGNK KFGMSIDEVI EECKLFYFAG QETTSSLLVW TMILLCKYPN WQDKAREEV
361 QVFGSREVDY DKLNQLKIVT MILNEVLRLY PAGYVINRMV NKETKLGSLC LPAGVQLVLP
421 TMLLQHDTEI WGDDAMEFNP ERFSDGISKA TKGKLVFFPF SWGPRICIGQ NFAMLEAKMA
481 MAMILKTYAF ELSPSYAHAP HPLLLQPQYG AQLILYKL

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FIG. 87

NAME D109-AH8 (14,1697)
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 173

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1 CCAGCACCAA GACATGGAGA ATTCCTGGGT AGTTTTAGCC TTAACAGGCC TTCTTACATT
61 AGTTTTTCTC TCAAAGTTTC TTCATAGTCC TCGTCGTAAA CAAAATCTTC CACCAGGTCC
121 AAAACCATGG CCTATTGTTG GCAATATACA TCTTCTTGGT TCCACCCCTC ACAGATCCCT
181 TCACGAACCTT GCAAAAAGAT ACGGAGATTT AATGCTACTA AAGTTCGGTT CGCGCAATGT
241 CCTTATTTTA TCCTCCCCAG ATATGGCTAG AGAATTCTTG AAAACAAATG ATGCCATTTG
301 GGCTTCTCGC CCTGAGCTTG CCGCTGGTAA ATATACTGCT TATAATTATT GCGACATGAC
361 ATGGGCACGT TATGGACCCT TTTGGAGACA AGCAAGGAGG ATCTATCTCA ACGAGATTTT
421 CAATCCTAAA CGTTTGGATT CATTTGAGTA CATTCGCATA GAGGAAAGGC ATAATTTGAT
481 TTCACGTCTT TTTGTTCTCT CTGGGAAGCC AATTCCTTCT AGAGACCATT TAACTCGGTA
541 CACTCTTACA AGTATAAGTA GAACAGTATT GAGTGGAAAA TATTTTAGCG AGTCACCTGG
601 CCAAAATTCA ATGATAACTT TGAAACAATT GCAGGATATG CTTGATAAGT GGTTTTTGCT
661 TAATGGTGTG ATCAATATTG GGGACTGGAT ACCTTGGCTT GCTTCTTGG ATTTGCAGGG
721 TTATGTCAAG CAAATGAAGG AGTTGCATAG GAACTTCGAC AAATTTTATA ACTTTTGCT
781 AGATGATCAC AAGGCTAATA GGGGAGAGAA GAACTTTGTG CCAAGAGACA TGGTCGATGT
841 TTTGCTGCAG CAAGCTGAGG ATCCTAATCT TGAGGTCAAA CTCACCAATG ATTGTGTCAA
901 GGGTCTAATG CAGGACTTAT TGGCTGGCGG CACGGACACC TCAGCAACAA CCGTTGAATG
961 GGCTTTTTAT GAACTTCTTA GACAACCTAA GATTATGAAG AAAGCACAAC AAGAGCTAGA
1021 CCTTGTCATT TCACAGGACA GATGGGTTCA AGAAAAAGAT TACACTCAAC TCCCTTACAT
1081 TGAGTCAATC ATCAAGGAAA CATTGAGGCT TCACCCAGTA AGCACCATGC TTCCACCGCG
1141 CATTGCCTTG GAGGATTGTC ATGTAGCAGG CTATGACATA CCTAAAGGTA CAATTTTAAT
1201 TGTGAACACT TGGAGTATTG GAAGAAATTC ACAGCATTGG GAGTCACCAG AAGAATTCCT
1261 TCCGGAGAGG TTTGAAGGGA AGAATATTGG TGTACAGGA CAACATTTTG CGCTCTTGCC
1321 ATTTGGCGCG GGCCGGAGAA AGTGCCAGG ATACAGTCTT GGGATTTCGT TAATTAGGGC
1381 AACTTTAGCT AACTTGTTGC ATGGATTCAA CTGGAGATTG CCTAATGGTA TGAGTCCAGA
1441 AGACATTAGC ATGGAAGAGA TTTATGGGCT AATTACACAC CCCAAAGTCG CACTTGACGT
1501 GATGATGGAG CCTCGACTTC CCAACCATCT TTACAAATAG TGGATAATTA AAACCATTAA
1561 AATCGTTTTG TTATATGCAT GTCTCATATT TGTAGTGGTC AAAATGTTTG TTTTCTATCA
1621 TGGATGTTCA GTGCGAGGTT GGGAAATTTCA AGTCATTAAAC GTGTGAAAT ATTTTAAAT
1681 TAAAAAAAAA AAAAAAA

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SEQ. ID. NO. 174

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1 MENSWVVLAL TGLLTLVFLS KFLHSPRRKQ NLPPGPKPWP IVGNIHLLGS TPHRSLHELA
61 KRYGDLMLLK FGSRLVLILS SPDMAREFLK TNDAIWASRP ELAAGKYTAY NYCDMTWARY
121 GPFWRQARRI YLNEIFNPKR LDSFEYIRIE ERHNLISRLF VLSGKPILLR DHLTRYTLTS
181 ISRTVLGSKY FSSEPGQNSM ITLKQLQDML DKWFLLNGVI NIGDWIPWLA FLDLQGYVKQ
241 MKELHRNFDK FHNFLDDHK ANRGEKNEVP RDMVDVLLQQ AEDPNLEVKL TNDVCVKGLMQ
301 DLLAGGTDTS ATTVEWAFYE LLRQPKIMKK AQQELDLVIS QDRWVQEKDY TQLPYIESII
361 KETLRLHPVS TMLPPRIALE DCHVAGYDIP KGTILIVNTW SIGRNSQHWEE SPEEFLPERF
421 EGKNIGVTGQ HFALLPFGAG RRKCPGYSLG IRIIRATLAN LLHGFWNRLP NGMSPEDISM
481 EEIYGLITHP KVALDVMMEP RLPNHLYK

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FIG. 88

NAME D110-AF12 (166,1631)
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 175

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1 ACTGTTCAAA TCACAGTAAC AGCATCTTGT GCTGCCATAA TAATTACTCT AGTGGTGTGT
61 ATATGGAGAG TGCTGAATTG GGTTTGGTTC AGACCAAAGA AGCTGGAAAA GCTACTGAGG
121 AAACAAGGTC TCAAAGGCAA TTCCTACAGG ATTTTGTATG GGGATATGAA GGAGCTTTCT
181 GGTATGATTA AGGAAGCTAA CTCCAAACCC ATGAATCTTT CTGATGATAT TGCCCCAAGA
241 TTGGTCCCTT TCTTTCTTGA TACCATCAAG AAATATGGGA AAAAATCCTT TGTATGGTTG
301 GGTCCAAAC CGCTGGTTTT TGTCATGGAC CCCGAGCTTA TAAAGGAAGT ATTCTCCAAA
361 AACTATCTGT ATCAAAGGCC TCATTCAAAT CCATTAACCA AGTTACTGGC ACAAGGACTT
421 GTAAGCCAAG AGGAAGACAA ATGGGGCCAAA CATAGAAAAA TCGTCACTCC TGCCTTCCAC
481 CTGGAGAAGC TAAAGCATAT GCTTCCAGCT TTTTGTGTTGA GCTGTACTGA GATGCTGAGC
541 AAATGGGAAG ACATTGTTGC AGTTGAGGGC TCACATGAGA TAGATATATG GCCTGGCCTT
601 CAACAATTAA CTAGTGATGT GATCTCTCGG ACAGCCTTTG GCAGTAGCTA TGAAGCAGGT
661 AGAAGGATAT TTGAACCTCA AAAGGAACAA GCTCAATTC TTATGGAAGC TATACGCTCC
721 GTTTATATTC CAGGCTGGAG GTTTTTGCCA ACAAAGAGGA ACAGAAGAAT GAAGGAAATT
781 GAAAAGGATG TTCAAGCCTT AGTTAGAGGT ATTATTGATA AAAGAGTAAA GTCAATGAAA
841 GCAGGAGAGG TGAATAATGA GGATCTGCTT GGTATATTGC TGGAACTTAA TTTTAAAGAA
901 ATTGAACAGC ATGGAAACAA GGATTTTGGG ATGAGCATTG AAGAAGTCAT TCAAGAAATGC
961 AAGTTATTCT ATTTTGCTGG CCAAGAACT ACATCAGTGT TGCTTGATG GACTCTAATA
1021 TTGCTGAGCA GGCATCAGGA TTGGCAAGCA CTGGCCAGAG AAGAGGTGTT GCAAGTCTTT
1081 GGGAATCAGA AACCAGATTT TGATGGATTA AATCGTCTAA AAATTGTTAC AATGATCTTG
1141 TACGAGTCTT TAAGGCTCTA TCCCCCAGTA GTGACACTTA CCCGAAGGCC TAAGGAAGAC
1201 ACTGTATTAG GAGATGTATC TCTACCAGCA GGTGTGTTAA TCTCCTTACC AGTGATCTTA
1261 TTGCATCACG ACGAAGAGAT ATGGGGTAAA GATGCAAAGA AGTTCAAGCC AGAGAGATTC
1321 AGAGATGGAG TCTCAAGTGC AACAAAGGGT CAAGTCACTT TTTTCCCATT TACTTGGGGT
1381 CCCAGAATAT GCATTGGACA AAATTTTGCC ATGTTAGAAG CAAAGACTAC TTTGGCTATG
1441 ATCCTACAAC GCTTCTCCTT TGAAGTGTCT CCATCTTATG CACATGCTCC TCAGTCCATA
1501 ATAACTTTGC AACCCCAGTA TGGTGCTCCA CTTATTTTGC ATAAAATATA GTTTATTACT
1561 TGTAAGTAGT GTCTCGTTTT ATGTTAAGCA TGAGTCCAAA ATGTTAAGGC TTGTAGAACT
1621 GCAAAATGGG A
  
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SEQ. ID. NO. 176

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1 MKELSGMIKE ANSKPMNLS DAPRLVPFF LDTIKKYGKK SFVWLGP KPL VFVMDPELIK
61 EVFSKNYLYQ KPHSNPLTKL LAQGLVSQEE DKWAKHRKIV TPAFHLEK LK HMLPAFCLSC
121 TEMLSKWEDI VAVEGSHEID IWPGLQQLTS DVISRTAFGS SYEAGRRI FE LQKEQAQFLM
181 EAIRSVYIPG WRFLPTKRN R MKEIEKD VQ ALVRGIIDKR VKSMKAGEVN NEDLLGILLE
241 SNFKEIEQHG NKDFGMSIEE VIQECKLFYF AGQETTSVLL VWTLLLSRH QDWQALAREE
301 VLQVFGNQKP DFDGLNRLKI VTMIYESLR LYPPVVT LTR RPKEDTVLGD VSLPAGVLIS
361 LPVILLHHDE EIWGKDAKKE KPERFRDGV S SATKGQVTF PFTWGPRI CI QONFAMLEAK
421 TTLAMILQRF SFELSPSYAH APQSIITLQP QYGAPLILHK I
  
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FIG. 89

NAME D112-AA5
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 177

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1 ATTTATCTCT GAAAATGCAA TTCTTCAGCT TGGTTTCCAT TTTCTATTTC CTATCTTTCC
61 TATTTTTTGT GAGGAAATGG AAGAACTCCA ATAGCCAAAG CAAAAAATTG CCACCAGGTC
121 CATGGAAAAT ACCAATACTA GGAAGTATGC TTCATATGAT TGGTGGAGAA CCGCACCATG
181 TCCTTAGAGA TTTAGCCAAA AAAGATGGAC CACTTATGCA CCTTCAGTTA GGTGAAATTT
241 CTGCAGTTGT GGTACTTCT AGGGACATGG CAAAAGAAGT GCTAAAAACT CATGACGTCG
301 TTTTGGCATC TAGGCCTAAA ATTGTAGCCA TGGACATTAT CTGTTATAAC CAGTCCGACA
361 TTGCCTTTAG CCCTTATGGC GACCACTGGA GACAAATGCG TAAAATTTGT GTCATGGAAC
421 TTCTCAATGC AAAGAATGTT CGGTCTTCA GCTCCATCAG ACGTGATGAA GTCGTTTCGTC
481 TCATTGACTC TATCCGGTCA GATTCTTCTT CAGGTGAGCT AGTTAATTTT ACGCAGAGGA
541 TCATTTGGTT TGCAAGCTCC ATGACGTGTA GATCAGCATT TGGGCAAGTA CTCAAGGGGC
601 AAGACATATT TGCCAAAAG ATCAGAGAAG TAATAGGATT AGCAGAAGGC TTTGATGTGG
661 TAGACATCTT CCCTACATAC AAGTTTCTTC ATGTTCTCAG TGGGATGAAG CGTAAACTTT
721 TGAATGCCCA CCTTAAGGTA GACGCCATG TTGAGGATGT CATCAACGAG CACAAGAAAA
781 ATCTTGACAG TGGCAAGAGT AATGGCGCAT TAGGAGGCGA AGATCTAATT GATGTCCTAC
841 TGAGACTTAT GAATGACACA AGTCTTCAAT TTCCCATCAC CAACGACAAT ATCAAAGCTG
901 TTGTTGTTGA CATGTTTGCT GCCGGAACAG AAACCTCATC AACAACAAC GTATGGGCCA
961 TGGCTGAAAT GATGAAGAAT CCAAGTGTAT TCGCCAAAGC TCAAGCAGAA GTGCGAGAAG
1021 CCTTAGGGA CAAAGTATCT TTTGATGAAA ATGATGTGGA GGAGCTGAAA TACTTAAAGT
1081 TAGTCATTAA AGAAACTTTG AGACTTCATC CACCGTCTCC ACTTTTGGTC CCAAGAGAAT
1141 GCAGGGAAGA TACGGATATA AACGGCTACA CTATTCCTGC AAAGACCAAA GTTATGGTTA
1201 ATGTTTGGGC ATTGGGAAGA GATCCAAAAT ATTGGGATGA CGCGGAAAGC TTAAAGCCAG
1261 AGAGATTGA GCAATGTTCT GTAGATATTT TTGGTAATAA TTTTGAGTTT CTTCCCTTTG
1321 GCGGGGGACG GAGAATTTGT CCTGGAATGT CATTTGGTTT AGCTAATCTT TACTTACCAT
1381 TGGCTCAATT ACTCTATCAC TTTGACTGGA AACTCCCAAC CGGAATCAAG CCAAGAGACT
1441 TGGACTTGAC CGAATTATCG GGAATAACTA TTGCTAGAAA GGGTGACCTT TACTTAAATG
1501 CTACTCCTTA TCAACCTTCT CGAGAGTAAT TTACTATTGG CATAAACATT TTAAATTTCC
1561 TTCATCAACC TC

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SEQ. ID. NO. 178

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1 MQFFSLVSIF LFLSFLFLLR KWKNSNSQSK KLPPGPWKIP ILGSMLHMIG GEPHHVLRDL
61 AKKDGPLMHL QLGEISAVVV TSRDMAKEVL KTHDVVFASR PKIVAMDIIC YNQSDIAFSP
121 YGDHWRQMRK ICVMELLNAK NVRSFSSIRR DEVVRLIDSI RSDSSSGELV NFTQRIIWFA
181 SSMTCRSAFG QVLKGQDIFA KKIREVIGLA EGFVDVDIFP TYKFLHVLSG MKRKLLNAHL
241 KVDAIVEDVI NEHKKNLAAG KSNGALGGED LIDVLLRLMN DTSLQFPITN DNIAVVVDM
301 FAAGTETSST TTVWAMAEMM KNPSVFAKAQ AEVREAFRDK VSFDENDVEE LKYLKLVKE
361 TLRLHPPSPL LVPRECREDT DINGYTIPAK TKVMNVWAL GRDPKYWDDA ESFKPERFEQ
421 CSVDIFGNF EFLPFGGRR ICPGMSFGLA NLYLPLAQLL YHFDWKLP TG IKPRDLDLTE
481 LSGITIARKG DLYLNATPYQ PSRE

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FIG. 90

NAME D120-AH4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 179

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1 ATAATGCTTT CTCCCATAGA AGCCATTGTA GGACTAGTAA CCTTCACATT TCTCTTCTTC
61 TTCCTATGGA CAAAAAATC TCAAAAACCT TCAAAACCCT TACCACCGAA AATCCCCGGA
121 GGATGGCCGG TAATCGGCCA TCTTTTCCAC TTCAATGACG ACGGCGACGA CCGTCCATTA
181 GCTCGAAAAC TCGGAGACTT AGCTGACAAA TACGGCCCCG TTTTCACTTT TCGGCTAGGC
241 CTTCCCCTTG TCTTAGTTGT AAGCAGTTAC GAAGCTGTAA AAGACTGTTT CTCTACAAAT
301 GACGCCATTT TTTCCAATCG TCCAGCTTTT CTTTACGGCG ATTACCTTGG CTACAATAAT
361 GCCATGCTAT TTTTGGCCAA TTACGGACCT TACTGGCGAA AAAATCGAAA ATTAGTTATT
421 CAGGAAGTTC TCTCCGCTAG TCGTCTCGAA AAATTCAAAC ACGTGAGATT TGCAAGAATT
481 CAAGCGAGCA TTAAGAATTT ATATACTCGA ATTGATGGAA ATTCGAGTAC GATAAATTTA
541 ACTGATTGGT TAGAAGAATT GAATTTTGGT CTGATCGTGA AGATGATCGC TGGAAAAAAT
601 TATGAATCCG GTAAAGGAGA TGAACAAGTG GAGAGATTTA AGAAAGCGTT TAAGGATTTT
661 ATGATTTTAT CAATGGAGTT TGTGTTATGG GATGCATTTT CAATTCCATT ATTTAAATGG
721 GTGGATTTTC AAGGGCATGT TAAGGCTATG AAAAGGACTT TTAAAGATAT AGATTCTGTT
781 TTTCAGAATT GGTTAGGGGA ACATATTAAT AAAAGAGAAA AAATGGAGGT TAATGCAGAA
841 GGGAAATGAAC AAGATTTTAT TGATGTGGTG CTTTCAAAAA TGAGTAATGA ATATCTTGGT
901 GAAGGTTACT CTCGTGATAC TGTCATTAAA GCAACGGTGT TTAGTTTGGT CTTGGATGCA
961 GCAGACACAG TTGCTCTTCA CATAAATTGG GGAATGGCAT TATTGATAAA CAATCAAAAG
1021 GCCTTGACGA AAGCACAAGA AGAGATAGAC ACAAAAGTTG GTAAGGACAG ATGGGTAGAA
1081 GAGAGTGATA TTAAGGATTT GGTATACCTC CAAGCTATTG TTAAAGAAGT GTTACGATTA
1141 TATCCACCAG GACCTTTGTT AGTACCACAC GAAAATGTAG AAGATTGTGT TGTAGTGGG
1201 TATCACATTC CTAAAGGGAC AAGATTATTC GCAAACGTCA TGAACTGCTC ACGTGATCCT
1261 AAACCTCTGGC CTGATCCTGA TACTTTCGAT CCAGAGAGAT TCATTGCTAC TGATATTGAC
1321 TTTCTGTGGT AGTACTATAA GTATATCCCG TTTGGTTCTG GAAGACGATC TTGTCCAGGG
1381 ATGACTTATG CATTGCAAGT GGAACACTTA ACAATGGCAC ATTTGATCCA AGGTTTCAAT
1441 TACAGAACTC CAAATGACGA GCCCTTGGAT ATGAAGGAAG GTGCAGGCAT AACTATACGT
1501 AAGGTAAATC CTGTGGAAC TATAATAGCG CCTCGCCTGG CACCTGAGCT TTATTAAAAC
1561 CTAAGATCTT TCATCTTGGT TGATCATTGT ATAATACTCC TAAATGGATA TTCATTTACC
1621 TTTTATCAAT TAA

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SEQ. ID. NO. 180

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1 MLSPIEAIVG LVTFTFLFFF LWTKKSQKPS KPLPPKIPGG WPVIGHLFHF NDDGDDRPLA
61 RKLGLADKY GPVFTFRLGL PLVLVVSSYE AVKDCFSTND AIFS NRPAFL YGDYLGYNNA
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKHVRFARIQ ASIKNLYTRI DGNSSTINLT
181 DWLEELNFGI IVKMIAGKNY ESGKGDEQVE RFKKA FKDFM ILSMEFVLWD AFPIPLFKWV
241 DFQGHVKAMK RTFKDIDSVF QNWLGEHINK REKMEVNAEG NEQDFIDVVL SKMSNEYLGE
301 GYSRDTVICA TVFSLVLDAA DTVALHINWG MALLINNQKA LTKAQEEIDT KVGKDRWVEE
361 SDIKDLVYLQ AIVKEVLRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLLRDPK
421 LWPDPDTFDP ERFIATDIDF RGQYKYIPF GSGRRSCPGM TYALQVEHLT MAHLIQGFNY
481 RTPNDEPLDM KEGAGITIRK VNPVELIAP RLAPELY

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FIG. 91

NAME D121-AA8
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 181

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1 AATCCATAAT GCTTTCTCCC ATAGAAGCCA TTGTAGGACT AGTAACCTTC ACATTTCTCT
61 TCTTCTTCCT ATGGACAAAA AAATCTCAAA AACCTTCAAA ACCCTTACCA CCGAAAATCC
121 CCGGAGGATG GCCGGTAATC GGCCATCTTT TCCACTTCAA TGACGACGGC GACGACCGTC
181 CATTAGCTCG AAAACTCGGA GACTTAGCTG ACAAATACGG CCCCCTTTTC ACTTTTCGGC
241 TAGGCCTTCC CTTTGTCTTA GTTGTAAGCA GTTACGAAGC TGTAAAAGAC TGTTTCTCTA
301 CAAATGACGC CATTTTTTCC AATCGTCCAG CTTTTCTTTA CGGCGATTAC CTTGGCTACA
361 ATAATGCCAT GCTATTTTTG GCCAATTACG GACCTTACTG GCGAAAAAAT CGAAAATTAG
421 TTATTCAGGA AGTTCTCTCC GCTAGTCGTC TCGAAAAATT CAAACACGTG AGATTGCAA
481 GAATTCAGC GAGCATTAAG AATTTATATA CTCGAATTGA TGGAAATTCG AGTACGATAA
541 ATTTAACTGA TTGGTTAGAA GAATTGAATT TTGGTCTGAT CGTGAAGATG ATCGCTGGAA
601 AAAATTATGA ATCCGGTAAA GGAGATGAAC AAGTGGAGAG ATTTAAGAAA GCGTTAAGG
661 ATTTTATGAT TTTATCAATG GAGTTTGTGT TATGGGATGC ATTTCCAATT CCATTATTTA
721 AATGGGTGGA TTTTCAAGGG CATGTTAAGG CTATGAAAAG GACTTTTAAA GATATAGATT
781 CTGTTTTTCA GAATTGGTTA GAGGAACATA TTAATAAAAAG AGAAAAAATG GAGGTTAATG
841 CAGAAGGGAA TGAACAAGAT TTCATTGATG TGGTGCTTTC AAAAATGAGT AATGAATATC
901 TTGGTGAAGG TTA CTCTCGT GATACTGTCA TTAAAGCAAC GGTGTTTAGT TTGGTCTTGG
961 ATGCAGCAGA CACAGTTGCT CTTACATAA ATTGGGGAAT GGCATTATTG ATAAACAATC
1021 AAAAGGCCTT GACGAAAGCA CAAGAAGAGA TAGACACAAA AGTTGGTAAG GACAGATGGG
1081 TAGAAGAGAG TGATATTAAG GATTTGGTAT ACCTCCAAGC TATTGTAAA GAAGTGTTAC
1141 GATTATATCC ACCAGGACCT TTGTTAGTAC CACACGAAA TGTAAGAT TGTGTGTTA
1201 GTGGATATCA CATTCTAAA GGGACAAGAT TATTCGCAA CGTCATGAAA CTGCAACGTG
1261 ATCCTAACT CTGGTCTGAT CCTGATACTT TCGATCCAGA GAGATTCATT GCTACTGATA
1321 TTGACTTTCG TGGTCAGTAC TATAAGTATA TCCCGTTTGG TTCTGGAAGA CGATCTTGTC
1381 CAGGGATGAC TTATGCATTG CAAGTGGAAC ACTTAACAAT GGCACATTG ATCCAAGGTT
1441 TCAATTACAG AACTCCAAAT GACGAGCCCT TGGATATGAA GGAAGGTGCA GGCATAACTA
1501 TACGTAAGGT AAATCCTGTG GAACTGATA TAGCGCCTCG CCTGGCACCT GAGCTTTATT
1561 AAAACCTAAG ATCATCTTGC TTGAT

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SEQ. ID. NO. 182

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1 MLSPIEAIVG LVTFTFLFFF LWTKKSQKPS KPLPPKIPGG WPVIGHLFHF NDDGDDRPLA
61 RKLGLADKY GPVFTFRLGL PLVLVVSSYE AVKDCFSTND AIFS NRPAFL YGDYLGYNNA
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKHVRFARIQ ASIKNLYTRI DGNSSINLT
181 DWLEELNFGI IVKMIAGKNY ESGKGDEQVE RFKKAFKDFM ILSMEFVLWD AFPIPLFKWV
241 DFQGHVKAMK RTFKDIDSVF QNWLEEHINK REKMEVNAEG NEQDFIDVVL SKMSNEYLGE
301 GYSRDTVIKA TVFSLVLDAA DTVALHINWG MALLINNQKA LTKAQEEIDT KVGKDRWVEE
361 SDIKDLVYLQ AIVKEVLRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLQRPDK
421 LWSDPDTFDP ERFIATDIDF RGQYYKYIPF GSGRRSCPGM TYALQVEHLT MAHLIQGFNY
481 RTPNDEPLDM KEGAGITIRK VNPVELIAP RLAPELY

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FIG. 92

NAME D122-AF10
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 183

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1 CTAAAACTCC ATAATGGTTT CTCCCGTAGA AGCCATTGTA GGACTAGTAA CCCTTACACT
61 TCTCTTCTAC TTCCTATGGC CCAAAAAATT TCAAATACCT TCAAAACCAT TACCACCGAA
121 AATTCCCGGA GGGTGGCCGG TAATCGGCCA TCTTTTCTAC TTCGATGATG ACGGCGACGA
181 CCGTCCATTA GCTCGAAAAC TCGGAGACTT AGCTGACAAA TACGGCCCGG TTTTCACTTT
241 CCGGCTAGGC CTTCCGCTTG TGTTAATTGT AAGCAGTTAC GAAGCTGTAA AAGACTGCTT
301 CTCTACAAAT GACGCCATTT TCTCCAATCG TCCAGCTTTT CTTTACGGTG AATACCTTGG
361 CTACAATAAT GCCATGCTAT TTTTGACAAA ATACGGACCT TATTGGCGAA AAAATAGAAA
421 ATTAGTCATT CAGGAAGTTC TCTCTGCTAG TCGTCTCGAA AAATTGAAGC ACGTGAGATT
481 TGGTAAAATT CAAACGAGCA TTAAGAGTTT ATACACTCGA ATTGATGGAA ATTCGAGTAC
541 GATAAATCTA ACTGATTGGT TAGAAGAATT GAATTTTGGT CTGATCGTGA AAATGATCGC
601 TGGGAAAAAT TATGAATCCG GTAAAGGAGA TGAACAAGTG GAGAGATTTA GGAAAGCGTA
661 TAAGGATTTT ATAATTTTAT CAATGGAGTT TGTGTTATGG GATGCTTTTC CAATTCCATT
721 GTTCAAATGG GTGGATTTTC AAGGCTATGT TAAGGCCATG AAAAGGACAT TTAAGGATAT
781 AGATTCTGTT TTTCAGAATT GGTTAGAGGA ACATGTCAAG AAAAGAGAAA AAATGGAGGT
841 TAATGCACAA GGAATGAAC AAGATTTTAT TGATGTGGTG CTTTCAAAAA TGAGTAATGA
901 ATATCTTGAT GAAGTTACT CTCGTGATAC TGTCATAAAA GCAACAGTGT TTAGTTTGGT
961 CTTGGATGCT GCGGACACAG TTGCTCTTCA CATGAATTGG GGAATGGCAT TACTGATAAA
1021 CAATCAACAT GCCTTGAAGA AAGCACAAGA AGAGATCGAT AAGAAAGTTG GTAAGGAAAG
1081 ATGGGTAGAA GAGAGTGATA TTAAGGATTT GGTCTACCTC CAAGCTATTG TTAAGAAGT
1141 GTTACGATTA TATCCACCAG GACCTTTATT AGTACCTCAT GAAAATGTAG AGGATTGTGT
1201 TGTTAGTGGA TATCACATTC CTAAAGGGAC TAGACTATTC GCGAACGTTA TGAAATTGCA
1261 GCGCGATCCT AAACCTCTGGT CAAATCCTGA TAAGTTTGAT CCAGAGAGAT TCTTCGCTGA
1321 TGATATTGAC TACCGTGGTC AGCACTATGA GTTTATCCCA TTTGGTTCTG GAAGACGATC
1381 TTGTCCGGGG ATGACTTATG CATTACAAGT GGAACACCTA ACAATAGCAC ATTTGATCCA
1441 GGGTTTCAAT TACAAAATC CAAATGACGA GCCCTTGGAT ATGAAGGAAG GTGCAGGATT
1501 AACTATACGT AAAGTAAATC CTGTAGAAGT GACAATTACG GCTCGCCTGG CACCTGAGCT
1561 TTATTAAAC CTTAGATGTT TTATCTTGAT TGTACTAATA TATATATGCA GAAAAAATTG

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SEQ. ID. NO. 184

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1 MVSPVEAIVG LVTLTLLFYF LWPKKFQIPS KPLPPKIPGG WPVIGHLFYF DDDGDDRPLA
61 RKLGDLDKY GPVFTFRLGL PLVLIVSSYE AVKDCFSTND AIFSNRPAFL YGEYLYGYNNA
121 MLFLTKYGPY WRKNRKLVIQ EVLSASRLEK LKHVRFGKIQ TSIKSLYTRI DGNSSTINLT
181 DWLEELNFGI IVKMIAGKNY ESGKGDEQVE RFRKAYKDFI ILSMEFVLWD AFPIPLFKWV
241 DFQGYVKAMK RTFKDIDSVF QNWLEEHVKK REKMEVNAQG NEQDFIDVVL SKMSNEYLDE
301 GYSRDTVICA TVFSLVLDAA DTVALHMNWD MALLINNQHA LKKAQEEIDK KVGKERWVEE
361 SDIKDLVYLQ AIVKEVLRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLQRPDK
421 LWSNPKFDP ERFFADDIDY RGQHYEFIPF GSGRRSCPGM TYALQVEHLT IAHLIQGFNY
481 KTPNDEPLDM KEGAGLTIRK VNPVEVTITA RLAPELY

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FIG. 93

NAME D128-AB7
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 185

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1 CGAGGCTCCC CACCAAAAAA TCATTTCTCT CGTCTAAAT GGATCTTCTC TTACTAGAGA
61 AGACCTTAAT TGGTCTTTTC TTTGCCATTT TAATCGCTTT AATTGTCTCT AAACCTCGTT
121 CAAAGCGTTT TAAGCTTCCT CCAGGACCAA TTCCAGTACC AGTTTTTGGT AATTGGCTTC
181 AAGTTGGTGA TGATTTAAAC CACAGAAATC TTACTGATTA TGCCAAAAAA TTTGGCGATC
241 TTTTCTTGTT AAGAATGGGT CAACGTAAC TAGTTGTTGT GTCATCTCCT GAATTAGCTA
301 AAGAAGTTTT ACACACACAA GGTGTTGAAT TTGGTTCAAG AACAAGAAAT GTTGTGTTTG
361 ATATTTTTTAC TGGAAAAGGT CAAGATATGG TTTTACTGT ATATGGTGAA CATTTGAGAA
421 AAATGAGGAG AATTATGACT GTACCATTTT TTACTAATAA AGTTGTGCAA CAGTATAGAG
481 GGGGGTGGGA GTTTGAGGTG GCAAGTGTA TTAGGATGT GAAAAAAAT CCTGAATCTG
541 CTACTAATGG GATCGTATTA AGGAGGAGAT TACAATTAAT GATGTATAAT AATATGTTTA
601 GGATTATGTT TGATAGGAGA TTTGAGAGTG AAGATGATCC TTTGTTTGTT AAGCTTAAGG
661 CTTTGAATGG TGAAAGGAGT AGATTGGCTC AAAGTTTTGA GTATAATTAT GGTGATTTTA
721 TTCCAATTTT GAGGCCTTTT TTAGAGAGTT ATTTGAAGAT CTGTAAAGAA GTTAAGGAGA
781 AGAGGCTGCA GCTTTTCAAA GATTACTTTG TTGATGAAAG AAAGAAGCTT TCAAATACCA
841 AGAGCTCGGA CAGCAATGCC CTAAAATGTG CGATTGATCA CATTCTTGAG GCTCAACAGA
901 AGGGAGAGAT CAATGAGGAC AACGTTCTTT ACATTGTTGA AAACATCAAT GTTGCTGCAA
961 TTGAAACAAC ATTATGGTCA ATTGAGTGGG GTATCGCCGA GCTAGTCAAC CACCTCACA
1021 TCCAAAAGAA ACTGCGCGAC GAGATTGACA CAGTTCTTGG ACCAGGAGTG CAAGTGACTG
1081 AACCAGACAC CCACAAGCTT CCATACCTTC AGGCTGTGAT CAAGGAGGCA CTTCTCTCC
1141 GTATGGCAAT TCCTCTATTA GTCCACACA TGAACCTTCA CGACGCAAAG CTTGGCGGGT
1201 TTGATATTCC AGCAGAGAGC AAAATCTTGG TTAACGCTTG GTGGTTAGCT AACAACCCGG
1261 CTCATTGGAA GAAACCCGAA GAGTTCAGAC CCGAGAGGTT CTTTGAAGAG GAGAAGCATG
1321 TTGAGGCCAA TGGCAATGAC TTCAGATATC TTCCGTTTGG CGTTGGTAGG AGGAGCTGCC
1381 CTGGAATTAT ACTTGCATTG CCAATTCTTG GCATCACTTT GGGACGTTTG GTTCAGAACT
1441 TTGAGCTGTT GCCTCCTCCA GGCCAGTCGA AGCTCGACAC CACAGAGAAA GGTGGACAGT
1501 TCAGTCTCCA CATTTTGAAG CATTCCACCA TTGTGTTGAA ACCAAGGTCT TTCTGAACTT
1561 TGTGATCTTA TTAATTAAGG GGTCTGAAG AAATTTGATA GTGTTGGATA TTAAGGGCGA
1621 ATT

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SEQ. ID. NO. 186

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1 MDLLLLLEKTL IGLFFAILIA LIVSKLRSKR FKLPPGPIPV PVFGNWLQVG DDLNHRNLTD
61 YAKKFGDLFL LRMGQRNLVV VSSPELAKEV LHTQGVFEGS RTRNVVFDIF TGKGQDMVFT
121 VYGEHWRKMR RIMTVPFFTN KVVQYRGGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNNMFRIM FDRRFESDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPFLRGYLK
241 ICEVKEKRL QLFKDYFVDE RKKLSNTKSS DSNALKCAID HILEAQQKGE INEDNVLYIV
301 ENINVAIET TLWSIEWGIA ELVNHPIQK KLRDEIDTVL GPGVQVTEPD THKLPYLQAV
361 IKEALRLRMA IPLLPHMNL HDAKLGGFDI PAESKILVNA WWLANNPAHW KKPEEFRPER
421 FFEEKHVEA NGNDFRYLPF GVRRRSCPGI ILALPILGIT LGRLVQNFEL LPPPGQSKLD
481 TTEKGGQFSL HILKHSTIVL KPRSF

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FIG. 94

NAME D129-AD10
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 187

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1 CAACACGCTT ACTATCTCCT AAATCTCCAC TCAAAAACAA AGAAGAGAAA GATTTAAAAC
61 TAATAATTAT GAAAGAGATG GTGCAAAACA ATATGAGCAC TTCTCTTCTT GAAACTTTAC
121 AAGCTACGCC CATGATATTC TACTTCATCG TCCCTCTCTT CTGCTTATTC CTTCTCTCCA
181 AATCTCGCCG TAAACGTTTG CCTCCAGGTC CAACTGGCTG GCCTCTCATT GGTAACATGA
241 TGATGATGGA CCAGTTAACT CACCGTGGCC TTGCCAAACT AGCCCCAAAA TATGGTGGTG
301 TTTTTCACCT TAAAATGGGT TATGTTTACA AAATTGTAGT CTCTGGTCCA GACGAAGCTC
361 GCCAAGTATT ACAGGAACAC GACATCATAT TTTCGAACCG TCCAGCGACC GTAGCCATAA
421 GTTACCTAAC ATATGACAGG GCAGACATGG CTTTTGCTGA CTATGGACTC TTCTGGCGGC
481 AGATGAGAAA ACTATGTGTA ATGAAACTCT TCAGCCGCAA ACGAGCTGAG TCATGGGACT
541 CAGTTCGAGA CGAAGCGGAT TCCATGGTTA GAATTGTAAC AACCAACACA GGCACAGCTG
601 TTAACCTAGG TGAACCTGTT TTCAGTCTCA CTCGTAATAT TATCTACAGA GCTGCTTTTG
661 GAACCTGTTT TGAAGATGGA CAAGGCGAGT TCATTGAAAT TATGCAAGAG TTTTCGAAGC
721 TATTTGGCGC TTTCAATATA GCTGATTTTA TTCCATGGCT AGGGTGGGTT GGTAAAGAGA
781 GTCTAAATAT TAGACTTGCT AAGGCTAGAG CGTCGCTTGA TGGGTTTATT GATTCGATTA
841 TTGATGACCA TATTATTAGA AAGAAAGCTT ATGTTAATGG CAAAAATGAT GGAGGTGATC
901 GAGAACTGA TATGGTGGAT GAGCTTTTAG CTTTTTACAG TGAGGAAGCA AAAGTAACTG
961 AGTCCGAAGA TTTGCAGAAT GCTATCAGAC TTACTAAGGA TAGTATCAAA GCTATCATCA
1021 TGGATGTAAT GTTTGGAGGG ACAGAAACAG TGGCTTCTGC AATAGAATGG GCCATGGCAG
1081 AGCTTATGAG GAGTCCTGAA GATCTTAAAA AAGTACAACA AGGGCTGGCT AACGTTGTTG
1141 GACTCAACAG AAAAGTTGAA GAATCTGACT TTGAAAAATT AACATACTTA AGATGTTGTC
1201 TAAAAGAAAC TCTACGACTT CACCCTCCAA TCCCTCTCCT CCTCCATGAG ACCGCCGAGG
1261 AATCCACCGT CTCCGGCTAC CATATTCCGG CAAAGTCACA TGTTATTATA AATTCATTTG
1321 CCATTGGGCG TGACAAAAAT TCATGGGAAG ATCCTGAAAC TTATAAACCA TCTAGGTTTC
1381 TCAAAGAAGG TGTACCAGAT TTAAAGGAG GTAATTTTGA GTTTATACCA TTTGGGTCGG
1441 GTCGGCGGTC TTGCCCCGGT ATGCAACTTG GGCTTTATGC ATTGGAAATG GCTGTGGCCC
1501 ATCTTCTTCA TTGTTTACT TGGGAATTGC CAGATGGTAT GAAACCAAGT GAGCTTAAAA
1561 TGGATGATAT TTTTGGACTC ACTGCTCCAA GAGCTAATCG ACTCGTGGCT GTGCCTACTC
1621 CACGCTTGTT GTGTCCCTT TATTAATTGA AGAAAAAAGG TGGGGCT

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SEQ. ID. NO. 188

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1 MKEMVQNNMS TSLLETQAT PMIFYFIVPL FCLFLLSKSR RKRLPPGPTG WPLIGNMMMM
61 DQLTHRGLAK LAQKYGGVEH LKMGYVHKIV VSGPDEARQV LQEHDIIFSN RPAITVAISYL
121 TYDRADMAFA DYGLEWRQMR KLCVMKLFSS KRAESWDSVR DEADSMVRIV TTNTGTAVNL
181 GELVFSLTRN IYRAAFGTC SEDQGGEFIE IMQEFKSLFG AFNIADFIPW LGWVGKQSLN
241 IRLAKARASL DGFIDSIDD HIIRKKAYVN GKNDGGDRET DMVDELLAFY SEEAKVTESE
301 DLQNAIRLTK DSIKAIIMDV MFGGTETVAS AIEWAMAELM RSPEDLKKVQ QGLANVVGLN
361 RKVEESDFEK LTYLRCCLEKE TLRLHPPIPL LLHETAEEST VSGYHIPAKS HVIINSFAIG
421 RDKNSWEDPE TYKPSRFLKE GVPDFKGGNF EFIPFGSGRR SCPGMQLGLY ALEMAVAHLL
481 HCFTWELPDG MKPSELKMDD IFGLTAPRAN RLVAVPTPRL LCPLY

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FIG. 95

NAME D135-AE1
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 189

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1  GGGGGATAAG AATATGGAGA TACCATATTA CAGCTTAAAA CTTACAATTT TTTCATTTGC
61 AATTATCTTT GTACTAAGAT GGGCATGGAA AATCTTGAAT TATGTGTGGT TAAAACCAAA
121 AGAATTGGAG AAATGCATCA GACAGCAGGG TTTCAAAGGA AACTCTTACA AATTCTTGTT
181 TGGGGATATG AAAGAGATAA AGAAAATGGG TGAAGAAGCT ATGTCTAAGC CAATCAATTT
241 CTCTCATGAC ATGATTTGGC CTAGAGTCAT GCCCTTCATC CACAAAACCA TCACCAATTA
301 TGGTAAGAAT TGTTTTGTGT GGTTTGGGCC AAGACCAGCA GTCCTGATCA CAGACCCGGA
361 ACTTGTAAGG GAGGTGCTAA CGAAGAATTT CGTTTATCAG AAGCCACCTG GCACTCCACT
421 CACAAAATTG GCAGCAACTG GAATTGCAGG CTATGAAACA GATAAATGGG CTACACATAG
481 AAGGCTTCTC AATCCTGCTT TTCACCTTGA CAAGTTGAAG CATATGCTAC CTGCATTCCA
541 ATTTACTGCT TGTGAGATGT TGAGCAAATT GGAGAAAGTT GTCTCACCAA ATGGAACAGA
601 GATAGATGTG TGGCCATATC TACAACTTT AACAAAGTAT GCCATTTCAA GAACTGCTTT
661 TGGCAGTAGT TATGAAGAAG GAAGAAAGCT TTTTGAAGTT CAAAAGGAAC AACTTTCACT
721 AATTCTAGAA GTGTCCCGCA CAATATACAT CCCAGGATGG AGGTTTTTGC CAACAAAAG
781 GAACAAAAGG ATGAAGCAA TATTTAATGA AGTACGAGCG CTGGTATTGG GAATTATTAA
841 GAAAAGATTG AGTATGATTG AAAATGGAGA AGCTCCTGAT GATTTATTGG GTATATTATT
901 GGCATCCAAT TTAAGAGAAA TCCAACAACA TGGAAATAAC AAGAAATTTG GTATGAGTAT
961 TGATGAGGTG ATTGAAGAGT GTAAACTCTT CTATTTTTCG GGGCAAGAGA CAACTTCATC
1021 TTTACTTGTA TGGACTATGA TTTTGTTGTG CAAACATCCT AGTTGGCAAG ATAAAGCTAG
1081 AGAAGAGGTT TTGCAAGTGT TTGGAAGTAG GGAAGTTGAC TATGACAAGT TGAATCAGCT
1141 AAAAATAGTA ACTATGATCT TAAACGAGGT CTTAAGGTTG TATCCAGCAG GATATGCGAT
1201 TAATCGAATG GTAACCAAAG AAACAAAGTT AGGGAATTTA TGTTTACCAG CTGGGGTACA
1261 ACTCTTGTTA CCAACAATTT TGTTGCAACA TGATACTGAA ATATGGGGAG ATGATGCAAT
1321 GGAGTTCAAT CCAGAGAGAT TTAGTGATGG AATATCCAAA GCAACAAAAG GAAAACCTGT
1381 GTTCTTTCCA TTTAGTTGGG GTCCAAGAAT ATGTATTGGG CAAAATTTTG CTATGTTAGA
1441 GGCCAAGATG GCAATGGCTA TGATTCTGAA AACTATGCA TTTGAAGTCT CTCCATCTTA
1501 TGCTCATGCT CCTCATCCAC TACTACTTCA ACCTCAATAT GGTGCTCAAT TAATTTTGTA
1561 CAAGTTGTAG AAATGGTCAA TTTGGAAGTT GTTATGGAAC TTTTATCATC GTAATCAACC

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SEQ. ID. NO. 190

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1  MEIPYYSLKL TIFSFAIIFV LRWAWKILNY VWLKPKELEK CIRQQGFKGN SYKFLFGDMK
61 EIKKMGEEM SKPINFSHDM IWPRVMPFIH KTITNYGKNC FVWFGPRPAV LITDPELVKE
121 VLTKNFVYQK PPGTPLTKLA ATGIAGYETD KWATHRRLLN PAFHLDKLBH MLPAFQFTAC
181 EMLSKLEKVV SPNGTEIDVW PYLQTLTSDA ISRTAFGSSY EEGRKLFELQ KEQLSLILEV
241 SRTIYIPGWR FLPTKRNRKM KQIFNEVRAL VLGIKKRLS MIENGEAPDD LLGILLASNL
301 KEIQQHGNK KFGMSIDEVI EECKLFYFAG QETTSSLLVW TMILLCKHPS WQDKAREEVL
361 QVFGSREVDY DKLNLKIVT MILNEVLRLY PAGYAINRMV TKETKLGNLC LPAGVQLLLP
421 TILLQHDTEI WGDDAMEFNP ERFSDGISKA TKGKLVFFPF SWGPRICIGQ NFAMLEAKMA
481 MAMILKNYAF ELSPSYAHAP HPLLLQPQYG AQLILYKL

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FIG. 96

NAME D141-AD7
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 191

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1  GTCCTAACTA AAAATGGAGA TTCAGTTTTC TAACTTAGTT GCATTCTTGC TCTTTCTCTC
61 CAGCATCTTT CTTCTATTCA AAAAATGGAA AACCAGAAAA CTAAATTTGC CTCTGGTCC
121 ATGGAATTA CCTTTTATTG GAAGTTTACA CCATTTGGCT GTGGCAGGTC CACTTCCTCA
181 CCATGGCCTA AAAAATTTAG CCAAACGCTA TGGTCCTCTT ATGCATTTAC AACTTGGACA
241 AATTCCTACA CTCATCATAT CATCACCTCA AATGGCAAAA GAAGTACTAA AAACCTACGA
301 CCTCGCTTTT GCCACTAGAC CAAAGCTTGT CGTGGCCGAC ATCATTCACT ACGACAGCAC
361 GGACATAGCA TTTTCTCCGT ACGGTGAATA CTGGAGACAA ATTTCGTAAA TTTGCATATT
421 GGAACCTCTG AGTGCCAAGA TGGTCAAATT TTTTAGCTCG ATTCGCCAAG ATGAGCTCTC
481 GAAGATGCTC TCATCTATAC GAACGACACC CAATCTTACA GTCAATCTTA CTGACAAAAAT
541 TTTTGGTTT ACGAGTTCGG TAACCTGTAG ATCAGCTTTA GGAAGATAT GTGGTGACCA
601 AGACAAATTG ATCATTTTTA TGAGGGAAAT AATATCATTG GCAGGTGGAT TTAGTATTGC
661 TGATTTTTTC CCTACATGGA AAATGATTCA TGATATTGAT GGTTCGAAAT CTAAATGGT
721 GAAAGCACAT CGTAAGATTG ATGAAATTTT GGGAAATGTT GTTGATGAGC ACAAAAAGAA
781 CAGAGCAGAT GGCAAGAAGG GTAATGGTGA ATTTGGTGGT GAAGATTTGA TTGATGTATT
841 GTTAAGAGTT AGAGAAAGTG GAGAAGTTCA AATTCCTATC ACAAATGACA ATATCAAATC
901 AATATTAATC GACATGTTCT CTGCGGGATC TGAAACATCA TCGACGACTA TAATTTGGGC
961 ATTAGCTGAA ATGATGAAGA AACCAAGTGT TTTAGCAAAG GCACAAGCTG AAGTAAGGCA
1021 AGCTTTGAAG GAGAAAAAAG GTTTTCAACA GATTGATCTT GATGAGCTAA AATATCTCAA
1081 GTTAGTAATC AAAGAAACCT TAAGAATGCA CCCTCCAATT CCTCTATTAG TTCCTAGAGA
1141 ATGTATGGAG GATACAAAGA TTGATGGTTA CAATATACCT TTCAAACAA GAGTCATAGT
1201 TAATGCATGG GCAATCGGAC GAGATCCAGA AAGTTGGGAT GACCCGAAA GCTTTATGCC
1261 AGAGAGATTT GAGAATAGTT CTATTGACTT TCTTGAAAT CATCATCAGT TTATACCATT
1321 TGGTGCAGGA AGAAGGATTT GTCCGGGAAT GCTATTTGGT TTAGCTAATG TTGGACAACC
1381 TTTAGCTCAG TTACTTTATC ACTTCGATTG GAACTCCCT AATGGACAAA GTCATGAGAA
1441 TTTGACATG ACTGAGTCAC CTGGAATTTT TGCTACAAGA AAGGATGATC TTGTTTTGAT
1501 TGCCACTCCT TATGATTCTT ATTAAGCAGT AGCAGAAATA AAAAGCCGGG GCAAACAGAA
1561 AAAAGT

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SEQ. ID. NO. 192

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1  MEIQFSNLVA FLLFLSSIFL LFKKWKTRKL NLPPGPWKLP FIGSLHHLAV AGPLPHHGLK
61  NLAKRYGPLM HLQLGQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMLS SIRTTPNLTV NLTDKIFWFT
181 SSVTCRSALG KICGDQDKLI IFMREIISLA GGFSIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILGNVV DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNIKSILID
301 MFSAGSETSS TTIIWALAEM MKKPSVLAKA QAEVRQALKE KKGQQIDLD ELKYLKLVK
361 ETLRMHPPIP LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE
421 NSSIDFLGNH HQFIPFGAGR RICPGMLFGL ANVGQPLAQL LYHFDWKLPN GQSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

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FIG. 97

NAME D147-AD3
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 193

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1 CAACTAACAA ACACATTGAG TCCTCTCCCA AATCACTGAT TCACCACCAA AAGTACCAAC
61 AATTCAATGG AAGGTACAAA CTTGACTACA TATGCAGCAG TATTTCTTGA TACTCTGTTT
121 CTTTTGTTC TTTCCAAACT TCTTCGCCAG AGGAAACTCA ATTTACCTCC AGGCCCAAAA
181 CCATGGCCGA TCATCGGAAA CTTAAACCTT ATTGGCAATC TTCCTCATCG CTCAATCCAC
241 GAACTCTCCC TCAAGTACGG ACCCGTTATG CAACTCCAAT TCGGGTCTTT CCCC GTTGTGA
301 GTTGGATCCT CCGTCGAAAT GGCTAAGATT TTCCTCAAAT CCATGGATAT TAACTTTGTA
361 GGCAGGCCTA AAACGGCTGC CGGAAAATAC ACAACGTACA ATTATTCCGA TATTACATGG
421 TCTCCTTACG GACCATATTG GCGCCAGGCA CGTAGGATGT GCCTAACGGA ATTATTCAGC
481 ACGAAACGTC TCGATTGATA CGAGTATATT CGGGCTGAGG AGTTGCATTG TCTTCTCCAT
541 AATTTGAACA AAATATCAGG GAAACCAATT GTGTTGAAAG ATTATTCGAC GACGTTGAGT
601 TTAAATGTGA TTAGCAGGAT GGTACTGGGG AAAAGGTATT TGGACGAATC CGAGAACTCG
661 TTCGTGAATC CTGAGGAATT TAAGAAGATG TTGGACGAAT TGTTTTTGCT AAATGGTGTGA
721 CTTAATATTG GAGATTCAAT TCCATGGATG GATTTTCATGG ATTTGCAAGG TTATGTTAAG
781 AGGATGAAAG TAGTGAGCAA GAAATTCGAC AAGTTTTTAG AGCATGTTAT TGATGAGCAT
841 AACATTAGGA GAAATGGAGT GGAGAATTAT GTTGCTAAGG ATATGGTGGA TGTTTTGTTG
901 CAGCTCGCTG ATGATCCGAA GTTGGGAAGT AAGCTGGAGA GACATGGAGT CAAAGCATTC
961 ACTCAGGATA TGCTGGCTGG TGGAACCGAG AGTTCAGCAG TGACAGTGGA GTGGGCAATT
1021 TCAGAGCTGC TAAAGAAGCC GGAGATTTTC AAAAAGGCTA CAGAAGAATT GGATCGAGTA
1081 ATTGGGCAGA ATAGATGGGT ACAAGAAAAG GACATTCCAA ATCTTCCTTA CATAGAGGCA
1141 ATAGTCAAAG AGACTATGCG ACTGCACCCC GTGGCACCAA TGTTGGTGCC ACGTGAGTGT
1201 CGAGAAGATA TTAAGGTAGC AGGCTACGAC GTTCAGAAAG GAACTAGGGT TCTCGTGAGT
1261 GTATGGACTA TTGGAAGAGA CCCTACATTG TGGGACGAGC CTGAGGTGTT CAAGCCGGAG
1321 AGATTCCATG AAAGGTCCAT AGATGTTAAA GGACATGATT ATGAGCTTTT GCCATTTGGA
1381 GCGGGGAGAA GAATGTGCCC GGGTTATAGC TTGGGGCTCA AGGTGATTCA AGCTAGCTTA
1441 GCTAATCTTC TACATGGATT TAACTGGTCA TTGCCTGATA ATATGACTCC TGAGGACCTC
1501 AACATGGATG AGATTTTTTG GCTCTCTACA CCTAAAAAAT TTCCACTTGC TACTGTGATT
1561 GAGCCAAGAC TTTCACCAAA ACTTTACTCT GTTTGATTCA GCAGTTCTAT GGTTCGTCA
1621 AGATAGACTT TGTTACGTTT GAACCTGTGC TC

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SEQ. ID. NO. 194

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1 MEGTNLTYYA AVFLDTLFL FLSKLLRQRK LNLPPGPKPW PIIGNLNLIG NLPHRSIHEL
61 SLKYGPVMQL QFGSFPVVVG SSVEMAKIFL KSMDINLVGR PKTAAGKYTT YNYSDITWSP
121 YGPYWRQARR MCLTELFSTK RLDSYEYIRA EELHSLHLNL NKISGKPIVL KDYSTTSLN
181 VISRMVLGKR YLDESENSEFV NPEEFKMLD ELFLNLGVNL IGDSIPWIDF MDLQGYVKRM
241 KVVSKKFDKF LEHVIDEHNI RRNGVENYVA KDMVDVLLQL ADDPKLEVKL ERHGVKAFTQ
301 DMLAGGTESS AVTVEWAISE LLKKPEIFKK ATEELDRVIG QNRWVQEKDI PNLPYIEAIV
361 KETMRHPVA PMLVPRECRE DIKVAGYDVQ KGTRVLVSVW TIGRDPTLWD EPEVFKPERF
421 HERSIDVKGH DYELLFPFAG RRMCPGYSLG LKVIQASLAN LLHGFNWSLP DNMTPELDNM
481 DEIFGLSTPK KFPLATVIEP RLSPKLYSV

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FIG. 98

NAME D163-AF12
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 195

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1 CTTCTTCCTT CCTAACTAAA AATGGAGATT CAGTTTTCTA ACTTAGTTGC ATTCTTGCTC
61 TTTCTCTCCA GCATCTTCTT TGTATTCAAA AAATGGAAAA CCAGAAAAC TAAATTTGCCT
121 CCTGGTCCAT GGAAATTACC TTTTATTGGA AGTTTACACC ATTTGGCTGT GGCAGGTCCA
181 CTTCTCACC ATGGCCTAAA AAATTTAGCC AAACGCTATG GTCCTCTTAT GCATTTACAA
241 CTTGGACAAA TTCTTACACT CGTCATATCA TCACCTCAAA TGGCAAAAGA AGTACTAAAA
301 ACTCACGACC TCGCTTTTGC CACTAGACCA AAGCTTGTCG TGGCCGACAT CATTCACTAC
361 GACAGCACGG ACATAGCATT TTCGCCATAC GGTGAATACT GGAGACAAAT TCGTAAAATT
421 TGCATATTGG AACTCTTGAG TGCCAAGATG GTCAAGTTTT TTAGCTCGAT TCGCCAAGAT
481 GAGCTCTCGA AGATGGTTTC ATCTATACGA ACACGCCCCA ATCTTCCAGT CAATCTTACC
541 GACAAGATTT TTTGGTTTAC GAGTTCGGTA ATTTGTAGAT CAGCTTTAGG GAAGATATGT
601 GGTGACCAAG ACAAATTGAT CATTTTTATG AGGGAAATAA TATCATTGGC AGGTGGATTT
661 AGTATTGCTG ATTTTTTCCC TACATGGAAA ATGATTGATG ATATTGATGG TTCAAAATCT
721 AAACGGTGA AGGCACATCG TAAGATTGAT GAAATTTTGG AAAATGTGGT AAATGAGCAC
781 AAACAGAAATC GAGCAGATGG TAAAAAGGGT AATGGTGAAT TTGGTGGAGA AGATCTGATT
841 GATGTTTTGT TAAGAGTTAG AGAAAGTGGA GAAGTTCAAA TTCCAATCAC AGATGACAAT
901 ATCAAATCAA TATTAATCGA CATGTTCTCT GCCGGATCGG AAACATCATC GACAACATA
961 ATTTGGGCAT TAGCTGAAAT GATGAAGAAA CCAAGTGTTT TAGCAAAGGC ACAAGCTGAA
1021 GTGAGGCAAG CTTTGAAGGG GAAGAAAATT AGTTTTCAAG AGATTGATAT TGATAAGCTA
1081 AAGTATTTGA AGTTAGTGAT CAAAGAACT TTAAGATGC ACCCTCCAAT TCCTCTGTTA
1141 GTCCCTAGAG AATGTATGGA AGATACAAAG ATTGATGGTT ACAATATACC TTTCAAAACA
1201 AGAGTCATTG TTAATGCATG GGCAATTGGA CGAGATCCTC AAAGTTGGGA TGATCCTGAA
1261 AGCTTTACGC CAGAGAGATT TGAGAATAAT TCTATTGATT TTCTTGGAAT TCATCATCAA
1321 TTTATTCCAT TTGGTGAGG AAGAAGGATT TGTCTGGAA TGCTATTTGG TTTAGCTAAT
1381 GTTGGACAAC CTTTAGCTCA GTTACTTTAT CACTTCGATT GGAAACTCCC TAATGGACAA
1441 AGTCATGAGA ATTTGACAT GACTGAGTCA CCTGGAATTT CTGCTACAAG AAAGGATGAT
1501 CTTGTTTTGA TTGCCACTCC TTATGATTCT TATTAAGCAG TAGCAGAAAT AAAAGCCGG
1561 GGCAAACAGA AAAAAGTATT GCTGCTTCTA GGTATTTTCT ATTTGGATAA TTTCAAAATT
1621 CATCCACAAT ATTTAGTGTT TGCTAGAGTT GGTTAGC

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SEQ. ID. NO. 196

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1 MEIQFSNLVA FLLFLSSIFL VFKKWKTRKL NLPPGPWKLP FIGSLHHLAV AGPLPHHGLK
61 NLAKRYGPM HLQLGQIPTL VISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMVS SIRTTPNLPV NLTDKIFWFT
181 SSVICRSALG KICGDQDKLI IFMREIISLA GGFSIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILENVV NEHKQNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT DDNIKSILID
301 MFSAGSETSS TTIWALAEM MKKPSVLAKA QAEVRQALKG KKISFQEIDI DKLKYLKLV
361 KETLRMHPII PLLVPRECME DTKIDGYNIP FKTRVIVNAW AIGRDPQSWD DPESFTPERF
421 ENNSIDFLGN HHQFIPFGAG RRICPGMLFG LANVGQPLAQ LLYHFDWKLP NGQSHENFDM
481 TESPGISATR KDDLVLIAATP YDSY

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FIG. 99

NAME D163-AG11
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 197

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1 CTTCTTCCTT CCTAACTAAA AATGGAGATT CAGTTTTCTA ACTTAGTTGC ATTCTTGCTC
61 TTTCTCTCCA GCATCTTTCT TGTATTCAAA AAATGGAAAA CCAGAAAACCT AAATTTGCCT
121 CCTGGTCCAT GGAAATTACC TTTTATTGGA AGTTTACACC ATTTGGCTGT GGCAGGTCCA
181 CTTCTCACC ATGGCCTAAA AAATTTAGCC AAACGCTATG GTCCTCTTAT GCATTTACAA
241 CTTGGACAAA TTCCTACACT CGTCATATCA TCACCTCAAA TGGCAAAAGA AGTACTAAAA
301 ACTCACGACC TCGCTTTTGC CACTAGACCA AAGCTTGTCG TGGCCGACAT CATTCACTAC
361 GACAGCACGG ACATAGCACT TTCGCCATAC GGTGAATACT GGAGACAAAT TCGTAAAAAT
421 TGCATATTGG AACTCTTGAG TGCCAAGATG GTCAAGTTTT TTAGCTCGAT TCGCCAAGAT
481 GAGCTCTCGA AGATGGTTTC ATCTATACGA ACGACGCCCA ATCTTCCAGT CAATCTTACC
541 GACAAGATTT TTTGGTTTAC GAGTTCGGTA ATTTGTAGAT CAGCTTTAGG GAAGATATGT
601 GGTGACCAAG ACAAATTGAT CATTTTTTATG AGGGAAATAA TATCATTGGC AGGTGGATTT
661 AGTATTGCTG ATTTTTTCCC TACATGGAAA ATGATTTCATG ATATTGATGG TTCAAAACT
721 AAAGTGGTGA AGGCACATCG TAAGATTGAT GAAATTTTGG AAAATGTGGT AAATGAGCAC
781 AAACAGAATC GAGCAGATGG TAAAAAGGGT AATGGTGAAT TTGGTGGAGA AGATCTGATT
841 GATGTTTTGT TAAGAGTTAG AGAAAGTGGA GAAGTTCAAA TTCCAATCAC AGATGACAAT
901 ATCAAATCAA TATTAATCGA CATGTTCTCT GCCGGATCGG AAACATCATC GACAACTATA
961 ATTTGGGCAT TAGCTGAAAT GATGAAGAAA CCAAGTGTTT TAGCAAAGGC ACAAGCTGAA
1021 GTGAGCCAAG CTTTGAAGGG GAAGAAAATT AGTTTTCAAG AGATTGATAT TGATAAGCTA
1081 AAGTATTTGA AGTTAGTGAT CAAAGAAACT TTAAGAATGC ACCCTCCAAT TCCTCTGTTA
1141 GTCCCTAGAG AATGTATGGA AGATACAAAG ATTGATGGTT ACAATATACC TTTCAAACA
1201 AGAGTCATTG TTAATGCATG GGCAATTGGA CGAGATCCTC AAAGTTGGGA TGATCCTGAA
1261 AGCTTTACGC CAGAGAGATT TGAGAATAAT TCTATTGATT TTCTTGGAAA TCATCATCAA
1321 TTTATTCCAT TTGGTGCAGG AAGAAGGATT TGTCTTGAA TGCTATTTGG TTTAGCTAAT
1381 GTTGACAAC CTTTAGCTCA GTTACTTTAT CACTTCGATT GGAAACTCCC TAATGGACAA
1441 ACTACCAAAA ATTTGACAT GACTGAGTCA CCTGGAATTT CTGCTACAAG AAAGGATGAT
1501 CTTATTTTGA TTGCCACTCC TGCTCATTCT TGATTAAGTA TTGCTGCTTT TCTATTGGAG
1561 AATTTTCAAA ATTCATCCAC AATATATAGT GTTTGCTAGA GTTGGTTAGC

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SEQ. ID. NO. 198

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1 MEIQFSNLVA FLLFLSSIFL VFKKWKTRKL NLPPGPWKLP FIGSLHHLAV AGPLPHHGLK
61 NLAKRYGPI M HLQLGQIPTL VISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAL
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMVS SIRTTPNLPV NLTDKIFWFT
181 SSVICRSALG KICGDQDKLI IFMREIISLA GGFSIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILENVV NEHKQNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT DDNIKSILID
301 MFSAGSETSS TTIIWALAEM MKKPSVLAKA QAEVSQALKG KKISFQEIDI DKLKYLKLVI
361 KETLRMHPII PLLVPRECME DTKIDGYNIP FKTRVIVNAW AIGRDPQSWD DPESFTPERF
421 ENNSIDFLGN HHQFIPFGAG RRICPGMLEG LANVGQPLAQ LLYHFDWKLP NGQTHQNFDM
481 TESPGISATR KDDLILITP AHS

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FIG. 100

NAME D163-AG12
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 199

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1 ATCCTTCTTC CTTCTAGGT CCTAACTAAA AATGGAGATT CAGTTTTCTA ACTTAGTTGC
61 ATTCTTGCTC TTTCTCTCCA GCATCTTTCT TCTATTCAAA AAATGGAAAA CCAGAAAACT
121 AAATTGCTCCT CCTGGTCCAT GGAAATTACC TTTTATTGGA AGTTTACACC ATTTGGCTGT
181 GGCAGGTCCA CTTCTCACC ATGGCCTAAA AAATTTAGCC AAACGCTATG GTCCTCTTAT
241 GCATTTACAA CTTGGACAAA TTCCTACACT CATCATATCA TCACCTCAAA TGGCAAAAGA
301 AGTACTAAAA ACTCACGACC TCGCTTTTGC CACTAGACCA AAGCTTGTCG TGGCCGACAT
361 CATTCACTAC GACAGCACGG ACATAGCATT TTCTCCGTAC GGTGAATACT GGAGACAAAT
421 TCGTAAAATT TGCATATTGG AACTCTTGAG TGCCAAGATG GTCAAATTTT TTAGCTCGAT
481 TCGCCAAGAT GAGCTCTCGA AGATGCTCTC ATCTATACGA ACGACACCCA ATCTTACAGT
541 CAATCTTACT GACAAAATTT TTTGGTTTAC GAGTTCGGTA ACTTGTAGAT CAGCTTTAGG
601 GAAGATATGT GGTGACCAAG ACAAATTGAT CATTTTTATG AGGGAAATAA TATCATTGGC
661 AGGTGGATTT AGTATTGCTG ATTTTTTCCC TACATGGAAA ATGATTCATG ATATTGATGG
721 TTCGAAATCT AAACCTGGTGA AAGCACATCG TAAGATTGAT GAAATTTTGG GAAATGTTGT
781 TGATGAGCAC AAAAAAGAACA GAGCAGATGG CAAGAAGGGT AATGGTGAAT TTGGTGGTGA
841 AGATTTGATT GATGTATTGT TAAGAGTTAG AGAAAGTGGA GAAGTTCAAA TTCCTATCAC
901 AAATGACAAT ATCAAATCAA TATTAATCGA CATGTTCTCT GCGGGATCTG AAACATCATC
961 GACGACTATA ATTTGGGCAT TAGCTGAAAT GATGAAGAAA CCAAGTGTTT TAGCAAAGGC
1021 ACAAGCTGAA GTAAGGCAAG CTTTGAAGGA GAAAAAAGGT TTTCAACAGA TTGATCTTGA
1081 TGAGCTAAAA TATCTCAAGT TAGTAATCAA AGAAACCTTA AGAATGCACC CTCCAATTCC
1141 TCTATTAGTT CCTAGAGAAT GTATGGAGGA TACAAAGATT GATGGTTACA ATATACCTTT
1201 CAAAACAAGA GTCATAGTTA ATGCATGGGC AATCGGACGA GATCCAGAAA GTTGGGATGA
1261 CCCCAGAAAGC TTTATGCCAG AGAGATTGA GAATAGTTCT ATTGACTTTC TTGGAAATCA
1321 TCATCAGTTT ATACCATTTG GTGCAGGAAG AAGGATTTGT CCGGGAATGC TATTTGGTTT
1381 AGCTAATGTT GGACAACCTT TAGCTCAGTT ACTTTATCAC TTCGATTGGA AACTCCCTAA
1441 TGGACAAAGT CATGAGAATT TCGACATGAC TGAGTCACCT GGAATTTCTG CTACAAGAAA
1501 GGATGATCTT GTTTTGATTG CCACTCCTTA TGATTCTTAT TAAGCAGTAG CAGAAATAAA
1561 AAGCCGGGGC AAACAGAAAA AAGTATTGCT GCTTCTAGGT ATTTTCTATT GGATAAATTT
1621 CAAAATTCAT CCACAATATT TAGTGTTTGC TAGAGTTGGT TAGC

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SEQ. ID. NO. 200

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1 MEIQFSNLVA FLLFLSSIFL LFKKWKTRKL NLPPGPWKLP FIGSLHHLAV AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMLS SIRTTPNLTV NLTDKIFWFT
181 SSVTCRSALG KICGDQDKLI IFMREIISLA GGFSIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILGNVV DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNIKSILID
301 MFSAGSETSS TTIIWALAEM MKKPSVLAKA QAEVRQALKE KKGFFQIDLD ELKYLKLVIK
361 ETLRMHPPIP LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESEMPERFE
421 NSSIDFLGNH HQFIPFGAGR RICPGMLFGL ANVGQPLAQL LYHFDWKLPN GQSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

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FIG. 101

NAME D205-BG9
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 201

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1 TTCTTATTTT GATTCAACCA TGGAGAACCA ATACTCCTAC TCATTCTCTT CCTACTTCTA
61 CTTAGCTATA GTACTGTTTC TTCTTCCAAT TTTGGTCAAA TATTTCTTCC ATCGGAGAAG
121 AAATTTACCT CCAAGTCCAT TTTCTCTTCC AATAATTGGT CACCTTTACC TTCTCAAGAA
181 AACTCTCCAT CTCACCTAA CATCCTTATC AGCTAAATAT GGTCTGTTT TATACCTCAA
241 ATTGGGCTCT ATGCCTGTGA TTGTTGTGTC CTCACCATCT GCTGTTGAAG AATGTTTAAAC
301 CAAGAATGAT ATCATATTCG CAAATAGGCC CAAGACCGTG GCTGGTGACA AGTTTACCTA
361 CAATTATACT GTTTATGTTT GGGCACCCTA TGGCCAACCTT TGGAGAATTC TTCGCCGATT
421 AACTGTCGTT GAACTCTTCT CTTACACATAG CCTACAGAAA ACTTCTATCC TTAGAGATCA
481 AGAAGTTGCA ATATTTATCC GTTCGTTATA CAAATTCTCA AAGGATAGTA GCAAAAAAGT
541 CGATTTGACC AACTGGTCTT TTACTTTGGT TTTCAATCTT ATGACCAAAA TTATTGCTGG
601 GAGACATATT GTGAAGGAGG AAGATGCTGG CAAGGAAAAAG GGCATTGAAA TTATTGAAAA
661 ACTTAGAGGG ACTTTCTTAG TAACTACATC ATTCTTGAAT ATGTGTGATT TCTTGCCAGT
721 ATTCAGGTGG GTTGGTTACA AAGGGCTGGA GAAGAAGATG GCCTCAATTC ACAATAGAAG
781 AAATGAATTC TTGAACAGCT TGCTTGATGA ATTTGACAC AAGAAAAGTA GTGCTTCACA
841 ATCTAACACA ACTGTTGGAA ACATGGAGAA GAAAACCACA CTGATTGAAA AGCTCTTGTC
901 TCTTCAAGAA TCAGAGCCTG AATTCTACAC TGATGATATC ATCAAAAGTA TTATGCTGGT
961 AGTTTTTGTT GCAGGAACAG AGACCTCATC AACAACCATC CAATGGGTAA TGAGGCTTCT
1021 TGTAGCTCAC CCTGAGGCAT TGTATAAGCT ACGAGCTGAC ATTGACAGTA AAGTTGGGAA
1081 TAAGCGCTTG CTGAATGAAT CAGACCTCAA CAAGCTTCCG TATTTGCATT GTGTTGTTAA
1141 TGAGACAATG AGATTATACA CTCCGATACC ACTTTTATTG CCTCATTATT CAACTAAAGA
1201 TTGTATTGTG GAAGGATATG ATGTACCAAA ACATACAATG TTGTTTGTCA ACGCTTGGGC
1261 CATTACAGG GATCCCAAGG TATGGGAGGA GCCTGACAAG TTCAAGCCAG AGAGATTTGA
1321 GGCAACAGAA GGGGAAACAG AAAGGTTCAA TTACAAGCTT GTACCATTG GAATGGGGAG
1381 AAGAGCGTGC CCTGGAGCTG ATATGGGGTT GCGAGCAGTT TCTTTGGCAT TAGGTGCACT
1441 TATTCATGTC TTTGACTGGC AAATTGAGGA AGCGGAAAGC TTGGAGGAAA GCTATAATTC
1501 TAGAATGACT ATGCAGAACA AGCCTTTGAA GGTTGTCTGC ACTCCACGCG AAGATCTTGG
1561 CCAGCTTCTA TCCCAACTCT AAGGCAATTT ATCAATGCCA AACGTAATCT TCATCTACCA
1621 CTATG

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SEQ. ID. NO. 202

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1 MENQSYSFS SYFYLAIVLF LLPILVKYFF HRRRNLPSP FSLPIIGHLY LLKKTLLHLL
61 TSLSAKYGPV LYLKLGSMFV IVVSSPSAVE ECLTKNDIIF ANRPKTVAGD KFTYNYTVYV
121 WAPYQLWRI LRRLTVVELF SSHSLQKTSI LRDQEVAFI RSLYKFSKDS SKKVDLTNWS
181 FTLVFNLMK IIAGRHIKE EDAGKEKIE IIEKLRGTFL VTTSFLNMCD FLPVFRWVG
241 KGLEKKMASI HNRRNEFLNS LLDEFRRHKS SASQSNTTVG NMEKKTLLIE KLLSLQSESE
301 EFYTDDIIS IMLVVFVAGT ETSSTTIQWV MRLLVHAPEA LYKLRADIDS KVGNRLLNE
361 SDLNKLPLYH CVVNETMRLY TPIPLLLPHY STKDCIVEGY DVPKHTMLFV NAWAIHRDPK
421 VWEEDKFKP ERFEATEGET ERFNYKLVF GMGRRACPGA DMGLRAVSLA LGALIQCFDW
481 QIEEAESLEE SYNRMTEMQN KPLKVCTPR EDLGQLLSQL

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FIG. 102

NAME D207-AA5
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 203

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1 AACCAACCTT CCTTTTCTTA CTTAGTAAAA TGGATATTCA GTCTTCTCCT TTCAACTTAA
61 TTGCTTTGCT ACTCTTCATT TCATTTCTTT TTATCCTATT GAAAAAGTGG AATACCAAAA
121 TCCCAAAGTT ACCTCCAGGT CCATGGAGAC TTCCCCTTAT TGGCAGCCTC CATCACTTGA
181 AAGGTAAACT CCCACACCAT CATCTTAGAG ATTTAGCCCG AAAATATGGA CCTCTCATGT
241 ATTTACAAC TGGAGAAGTT CCTGTAGTTG TAATATCTTC GCCACGTATA GCAAAAGCTG
301 TACTAAAAAC TCATGATCTT GCTTTTGCAA CGAGGCCTCG GTTCATGTCC TCGGACATTG
361 TGTTTTACAA AAGCAGGGAC ATATCATTCG CCCCATATGG CGATTACTGG AGACAAATGC
421 GTAAAATATT AACACAAGAA CTCTTGAGTA ACAAGATGCT CAAGTCATTT AGCACAATCC
481 GAAAGGATGA GCTCTCGAAG CTCCTCTCGT CGATTTCGTT AGCAACAGCT TCTTCTGCAG
541 TGAACATAAA CGAAAAGCTT CTCTGGTTTA CAAGTTGCAT GACTTGTAGA TTAGCCTTTG
601 GAAAAATATG CAACGATCGT GATGAATTGA TTATGTTAAT AAGGGAGATA TTAGCATTAT
661 CAGGAGGATT TGATGTGTGT GATTTGTTC CTTTCATGGAA ATTACTTCAC AATATGAGCA
721 ACATGAAAGC TAGATTGACG AATGTTTACC ATAAGTATAA TCTAATTATG GAGAATATCA
781 TCAATGAGCA CAAAGAGAAT CATGCAGCAG GGATAAAGGG AAATAACGAG TTTGGTGGCG
841 AAGATATGAT TGATGCTTTA CTGAGGGTTA AGGAGAATAA TGAGCTTCAA TTTCTATCG
901 AAAATGACAA CATGAAAGCA GTAATTCTGG ACTTGTTTAT TGCTGGAAGT GAAACTTCAT
961 ATACTGCAAT TATATGGGCA CTATCAGAAT TGATGAAGCA CCCAAGTGTT ATGGCCAAGG
1021 CACAAGCTGA AGTGAGAAAA GTCTTCAAAG AAAATGAAAA CTGGGACGAA AATGATCTTG
1081 ACAAGTTGCC ATAATTAAAA TCAGTGATCA AAGAAACACT AAGGATGCAT CCTCCAGTTC
1141 CTTTATTAGG ACCTAGAGAA TGCAGAGAAC AAAGTGAGAT TGATGGATAT ACTGTACCTC
1201 TTAAAGCTAG AGTAATGGTT AATGCATGGG CAATTGGAAG AGATCCTGAA AGTTGGGAAG
1261 ATCCTGAAAG TTTCAAACCC GAGCGATTTG AAAATATTTT TGTTGATCTT ACGGGAAATC
1321 ACTATCAGTT CATCCCTTTC GGTTCAGGAA GAAGAATGTG TCCAGGAATG TCGTTTGGTT
1381 TAGTTAACAC TGGGCATCCT TTAGCTCAGT TGCTCTATTT CTTTGACTGG AAATTCCTTC
1441 ATAAGGTTAA TGCAGCTGAT TTTACACTA CTGAAACAAG TAGAGTTTTT GCAGCAAGCA
1501 AAGATGACCT CTACTTGATT CCAACAAATC ACATGGAGCA AGAGTAGCTC TAAATTGAAT
1561 TCTTGTCTTG GAACAATAAA AGAAGAAACT CCAGCTTGGT CTACATTATT TCTTTTGTCT
1621 TTATATTAGT ATGGGTGTGT TCAGTTTCTT ATTTTAAAGG GTACCCTGAA AGATAAAGGG
1681 CTATATAAAC CAGTGAGACT TTTTATTGGT TGCAAGGTTT TAGATCAAGC CATAAGACAG
1741 CATATTTTAT TCAAAAAAAA AAAAAAA

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SEQ. ID. NO. 204

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1 MDIQSSPFNL IALLLFISFL FILLKKWNTK IPKLPPGPWR LPLIGSLHHL KGKLPHHHLR
61 DLARKYGPLM YLQLGEVPV VVISSPRIAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APYGDYWRQM RKILTQELLS NKMLKSFTI RKDELSKLLS SIRLATASSA VNINEKLLWF
181 TSCMTCRLAF GKICNDRDEL IMLIREILAL SGGFDVCDLF PSWKLLHNMS NMKARLTNVH
241 HKYNLIMENI INEHKENHAA GIKGNNEFGG EDMIDALLRV KENNELQFPI ENDNMKAVIL
301 DLFIAGTETS YTAIIWALSE LMKHPSVMAK AQAEVRKVFK ENENLDENDL DKLPYLKSVI
361 KETLRMHPPV PLLGPRECRE QTEIDGYTVP LKARVMVNAW AIGRPDESWE DPESFKPERF
421 ENISVDLTGN HYQFIPFGSG RRMCPGMSFG LVNTGHPLAQ LLYFFDWKFP HKVNAADFHT
481 TETSRVFAAS KDDLILIPTN HMEQE

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FIG. 103

NAME D207-AB4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 205

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1 AACCAACCTT CCTTTTCTTA CTTAGTAAAA TGGATATTCA GTCTTCTCCT TTCAACTTAA
61 TTGCTTTGCT ACTCTTCATT TCATTTCTTT TTATCCTATT GAAAAAGTGG AATACCAAAA
121 TCCCAAAGTT ACCTCCAGGT CCATGGAGAC TTCCCCTTAT TGGCAGCCTC CATCACTTGA
181 AAGGTAAACT CCCACACCAT CATCTTAGAG ATTTAGCCCG AAAATATGGA CCTCTCATGT
241 ATTTACAAC TGGAGAAGTT CCTGTAGTTG TAATATCTTC GCCACGTATA GCAAAAGCTG
301 TACTAAAAAC TCATGATCTT GCTTTTGCAA CGAGGCCTCG GTTCATGTCC TCGGACATTG
361 TGTTTTACAA AAGCAGGGAC ATATCATTCTG CCCCATATGG CGATTACTGG AGACAAATGC
421 GTAAAATATT AACACAAGAA CTCTTGAGTA ACAAGATGCT CAAGTCATT AGCACAATCC
481 GAAAGGATGG GCTCTCGAAG CTCCTCTCGT CGATTCTGTT AGCAACAGCT TCTTCTGCAG
541 TGAACATAAA CGAAAAGCTT CTCTGGTTTA CAAGTTGCAT GACTTGTAGA TTAGCCTTTG
601 GAAAAATATG CAACGATCGT GATGAATTGA TTATGTTAAT AAGGGAGATA TTAGCATTAT
661 CAGGAGGATT TGATGTGTGT GATTGTGTTT CTTTCATGGAA ATTACTTCAC AATATGAGCA
721 ACATGAAAGC TAGATTGACG AATGTTCAAC ATAAGTATAA TCTAATTATG GAGAATATCA
781 TCAATGAGCA CAAAGAGAAT CATGCAGCAG GGATAAAGGG AAATAACGAG TTTGGTGGCG
841 AAGATATGAT TGATGCTTTA CTGAGGGTTA AGGAGAATAA TGAGCTTCAA TTTCCTATCG
901 AAAATGACAA CATGAAAGCA GTAATTCCTG ACTTGTATTAT TGCTGGAAC GAACTTCAT
961 ATACTGCAAT TATATGGGCA CTATCAGAAT TGATGAAGCA CCCAAGTGTT ATGGCCAAGG
1021 CACAAGCTGA AGTGAGAAAA GTCTTCAAAG AAAATGAAAA CTTGGACGAA AATGATCTTG
1081 ACAAGTTGCC ATACTTAAAA TCAGTGATCA AAGAAACACT AAGGATGCAT CCTCCAGTTC
1141 CTTTATTAGG ACCTAGAGAA TGCAGAGAAC AAAGTGAGAT TGATGGATAT ACTGTACCTC
1201 TTAAAGCTAG AGTAATGGTT AATGCATGGG CAATTGGAAG AGATCCTGAA AGTTGGGAAG
1261 ATCCTGAAAG TTTCAAACCC GAGCGATTG AAAATATTTT TGTGATCTT ACGGGAATC
1321 ACTATCAGTT CATTCCTTTC GGTTCAGGAA GAAGAATGTG TCCAGGAATG TCGTTTGGTT
1381 TAGTTAACAC TGGGCATCCT TTAGCTCAGT TGCTCTATTT CTTTGACTGG AAATCCCTC
1441 ATAAGGTTAA TGCAGCTGAT TTTCACTACTA CTGAAACAAG TAGAGTTTTT GCAGCAAGCA
1501 AAGATGACCT CTACTTGATT CCAACAAATC ACATGGAGCA AGAGTAGCTC TAAATTGAAT
1561 TCTTGTCTTG GAACGATAAA AGAAGAACT CCAGCTTGGT CTACATTATT TCTTTTGCT
1621 TTATATTAGT ATGGGTGTGT TCAGTTTCTT GTTTTTAAGG GTACCCTGAA AGATAAAGG
1681 CTATATAAAC CAGTGAGACT TTTTATTGAA AAAAAAAAAA AAAAAAAAAA AAAAAA

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SEQ. ID. NO. 206

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1 MDIQSSPFNL IALLLFISFL FILLKKWNTK IPKLPPGPWR LPLIGSLHHL KGKLPHHHLR
61 DLARKYGPLM YLQLGEVPV VISSPRIAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APYGDYWRQM RKILTQELLS NKMLKSFSTI RKDELSKLLS SIRLATASSA VNINEKLLWF
181 TSCMTCRLAF GKICNDRDEL IMLIREILAL SGGFDVCDLF PSWKLLHNMS NMKARLTNVH
241 HKYNLIMENI INEHKENHAA GIKGNNEFGG EDMIDALLRV KENNELQFPI ENDNMKAVIL
301 DLFIAGTETS YTAIIWALSE LMKHPSVMK AQAEVRKVFK ENENLDENDL DKLPYLKSVI
361 KETLRMHPPV PLLGPRECRE QTEIDGYTVP LKARVMVNAW AIGRDPESWE DPESFKPERF
421 ENISVDLTGN HYQFIPFGSG RRMCPGMSFG LVNTGHPLAQ LLYLFDWKFP HKVNAADFHT
481 TETSRVFAAS KDDLILIPTN HMEQE

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FIG. 104

NAME D207-AC4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 207

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1 AACCAACCTT CCTTTTCTTA CTTAGTAAAA TGGATATTCA GTCTTCTCCT TTCAACTTAA
61 TTGCTTTGCT ACTCTTCATT TCATTTCTTT TTATCCTATT GAAAAAGTGG AATACCAAAA
121 TCCCAAAGTT ACCTCCAGGT CCATGGAGAC TTCCCCTTAT TGGCAGCCTC CATCACTTGA
181 AAGGTAAACT CCCACACCAT CATCTTAGAG ATTTAGCCCG AAAATATGGA CCTCTCATGT
241 ATTTACAAC TGGAGAAGTT CCTGTAGTTG TAATATCTTC GCCACGTATA GCAAAGCTG
301 TACTAAAAAC TCATGATCTT GCTTTTGCAA CGAGGCCTCG GTTCATGTCC TCGGACATTG
361 TGTTTTACAA AAGCAGGGAC ATATCATTCG CCCCATATGG CGATTACTGG AGACAAATGC
421 GTAAAATATT AACACAAGAA CTCTTGAGTA ACAAGATGCT CAAGTCATTT AGCACAATCC
481 GAAAGGATGA GCTCTCGAAG CTCCTCTCGT CGATTCTGTT AGCAACAGCT TCTTCTGCAG
541 TGAACATAAA CGAAAAGCTT CTCTGGTTTA CAAGTTGCAT GACTTGTAAG TTAGCCTTTG
601 GAAAAATATG CAACGATCGT GATGAATTGA TTATGTTAAT AAGGGAGATA TTAGCATTAT
661 CAGGAGGATT TGATGTGTGT GATTTGTTCC CTTCATGGAA ATTACTTCAC AATATGAGCA
721 ACATGAAAGC TAGATTGACG AATGTTACC ATAAGTATAA TCTAATTATG GAGAATATCA
781 TCAATGAGCA CAAAGAGAAT CATGCAGCAG GGATAAAGGG AAATAACGAG TTTGGTGGCG
841 AAGATATGAT TGATGCTTTA CTGAGGGTTA AGGAGAATAA TGAGCTTCAA TTTCCTATCG
901 AAAATGACAA CATGAAAGCA GTAATTCTGG ACTTGTTTAT TGCTGGAACT GAAACTTCAT
961 ATACTGCAAT TATATGGGCA CTATCAGAAT TGATGAAGCA CCCAAGTGTT ATGGCCAAGG
1021 CACAAGCTGA AGTGAGAAAA GTCTTCAAAG AAAATGAAAA CTTGGACGAA AATGATCTTG
1081 ACAAGTTGCC ATACTTAAAA TCAGTGATCA AAGAAACACT AAGGATGCAT CCTCCAGTTC
1141 CTTTATTAGG ACCTAGAGAA TGCAGAGAAC AAAGTGAGAT TGATGGATAT ACTGTACCTC
1201 TTAAAGCTAG AGTAATGGTT AATGCATGGG CAATTGGAAG AGATCCTGAA AGTTGGGAAG
1261 ATCCTGAAAG TTTCAAACCC GAGCGATTGG AAAATATTTT TGTGATCTT ACGGGAAATC
1321 ACTATCAGTT CATTCCTTTC GGTTTCAGGAA GAAGAATGTG TCCAGGAATG TCGTTTGGTT
1381 TAGTTAACAC TGGGCATCCT TTAGCTCAGT TGCTCTATCT CTTTGACTGG AAATTCCTC
1441 ATAAGGTTAA TGCAGCTGAT TTTCACACTA CTGAAACAAG TAGAGTTTTT GCAGCAAGCA
1501 AAGATGACCT CTAAGTGATT CCAACAAATC ACATGGAGCA AGAGTAGCTC TAAATGAAT
1561 TCTTGTCTTG GAACAATAAA AGAAGAACT CCAGCTTGGT CTACATTATT TCCTTTTGCT
1621 TTATATTAGT ATGGGTGTGT TCAGTCTCTT GTTTTAAAGG GTACCCTGAA AGATAAAGGG
1681 CTATATAAAC CAGTGAGACT TTTTATTGGT TGCAAGGTTT TAGATCAAGC CATAAGACAG
1741 CATATTTTAT TCCACCATTT TCTATCATGT TTAATAAAGT TCCTTTCGTT TATTGTTAGA
1801 AAAAAAAAAA AAAAAAAAAA AAA

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SEQ. ID. NO. 208

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1 MDIQSSPFNL IALLLFISFL FILLKKWNTK IPKLPPGPWR LPLIGSLHHL KGKLPHHHLR
61 DLARKYGPLM YLQLGEVPV VISSPRIAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APYGDYWRQM RKILTQELLS NKMLKSFSTI RKDELSKLLS SIRLATASSA VNINEKLLWF
181 TSCMTCRLAF GKICNDRDEL IMLIREILAL SGGFDVCDLF PSWKLLHNMS NMKARLTNVH
241 HKYNLIMENI INEHKENHAA GIKGNNEFGG EDMIDALLRV KENNELQFPI ENDNMKAVIL
301 DLFIAGTETS YTAIIWALSE LMKHPSVMAK AQAEVRKVFK ENENLDENDL DKLPYLKSVI
361 KETLRMHPPV PLLGPRECRE QTEIDGYTVP LKARVMVNAW AIGRPESWE DPESFKPERF
421 ENISVDLTGN HYQFIPFGSG RRMCPGMSFG LVNTGHPLAQ LLYLFDWKFP HKVNAADFHT
481 TETSRVFAAS KDDLILYPTN HMEQE

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FIG. 105

NAME D209-AA10
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 209

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1 ATATGCAACT GAGATTTGAA GAATACCAAC TAACCAAAAT GCAGTTCTTC AGCCTGGTTT
61 CCATTTTCCT ATTTCTATCT TTCCTCTTTT TGTTAAGGGT ATGGAAGAAC TCCAATAGCC
121 AAAGCAAAAA GTTGCCACCA GGTCCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGGTTGGTGG ACTACCACAC CATGTCCTTA GAGATTTAGC CAAAAAATAT GGACCACCTA
241 TGCACCTTCA ATTAGGTGAA GTTTCTGCGG TTGTGGTTAC TTCTCCTGAT ACGGCAAAAG
301 AAGTATTAAA AACTCATGAC ATCGCTTTTG CGTCTAGGCC TAGCCTTTTG GCCCGGAGA
361 TTGTCTGTTA CAATAGGTCT GATCTAGCCT TTTGCCCTTA TGGCGACTAT TGGAGACAAA
421 TGGCTAAAAAT ATGTGTCTTG GAAGTGCTCA GTGCCAAGAA TGTTCCGGACA TTTAGCTCTA
481 TTAGGCGGAA TGAAGTTCTT CGTCTCATTA ATTTTATCCG GTCATCTTCT GGTGAACCTA
541 TTAATGTTAC GGAAGGATC TTTTGTTC CAAGCTCCAT GACATGTAGA TCAGCGTTTG
601 GGCAAGTGTT CAAAGAGCAA GACAAATTTA TACAATAAT TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGTGGCT GACATATTCC CTTCACTGAA GTTCTTCTAT GTGCTCAGTG
721 GAATGAAGGG TAAGATTATG AATGCACACC ATAAGGTAGA TGCCATTGTT GAGAATGTCA
781 TCAATGAGCA CAAGAAAAAT CTTGCAATTG AGACTTATGA ATGATGGAGG CCTTCAATTT CCTATCACC
841 ATTTAATTGA TGTTCTTCTA ATTTTGTGACA TGTTTGCTGC CGGGACAGAG ACTTCATCGT
901 ACGACAACAT CAAAGCTATA ATTTTGTGACA TGTTTGCTGC AGCCGTATTC GCGAAAGCTC
961 CAACAATTGT GTGGGCTATG GTAGAAATGG TGAAAAATCC AGCCGTATTC GATGTGGAGG
1021 AAGCAGAAGT AAGAGAAGCA TTTAGAGGAA AAGAACTTT CGATGAAAAT GATGTGGAGG
1081 AGCTAAACTA CCTAAAGTTA GTAATAAAG AACTCTAAG ACTTCATCCA CCGGTTCCAC
1141 TTTTGCTCCC AAGAGAATGT AGGGAAGAGA CAAATATAAA CGGCTACACT ATTCCTGTAA
1201 AGACCAAAGT CATGGTTAAT GTTTGGGCTT TGGGAAGAGA TCCAAAATAT TGGAAATGACG
1261 CAGAACTTT TATGCCAGAG AGATTTGAGC AGTGCTCTAA GGATTTTGTT GGTAATAATT
1321 TTGAATATCT TCCATTGGT GCGGAAGGA GGATTTGTCC TGGGATTTG TTTGGCTTAG
1381 CTAATGCTTA TTTGCCATTG GCTCAATTAC TATATCACTT CGATTGGAAT CTCCCTGCTG
1441 GAATCGAACC AAGCGACTTG GACTTGACTG AGTTGGTTGG AGTAAGTCC GCTAGAAAAA
1501 GTGACCTTTA CTTGGTTGCG ACTCCTTATC AACCTCCTCA AAAGTGATTT AATGGTTTCA
1561 AGTTTTTATT TCCTAGCAAA CCCCACTATT GTCCTATCTT TCTTTTGGTG TTTTCGGTTT
1621 TATCTACTCT AATACATGCA TCTTTTACCA TATAGGAATG TACCATGTTG TCG

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SEQ. ID. NO. 210

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1 MQLRFEEYQL TKMQFFSLVS IFLFLSFLFL LRVWKNNSQ SKKLPPGPWK LPILGSMMLHM
61 VGGLPHHVLR DLAKKYGPLM HLQLGEVSAV VVTSPDTAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSDLAF CPYGDYWRQM RKICVLEVL AKNVRTFSSI RRNEVLRLIN FIRSSSGEPI
181 NVTERIFLFT SSMTCRFAFG QVFKEQDKFI QLIKEVILLA GGFVDVADIFP SLKFLHVLG
241 MKGKIMNAHH KVDAIVENVI NEHKKNLAIK KTNALGGED LIDVLLRLMN DGGLOFPITN
301 DNIKAIIFDM FAAGTETSSS TIVWAMVEMV KNPVFAKAQ AEVREAFGRK ETFDENDVEE
361 LNYLKLVIKE TLRLHPPVPL LLPRECREET NINGYTIPVK TKVMVNVWAL GRDPKYWDA
421 ETFMFERFEQ CSKDFVGNNF EYLPFGGRR ICPGISFGLA NAYLPLAQLL YHFDWKLPAQ
481 IEPDLDLTE LVGVTAARKS DLYLVATPYQ PPQK

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FIG. 106

NAME D209-AA12
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 211

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1 ATATGCAACT GAGATTTGAA GAATACCAAC TAACCAAAAT GCAGTTCCTC AGCTTGGGTTT
61 CCATTTTCCT ATTTCTATCT TTCCTCTTTT TGTTAAGGAT ATGGAAGAAC TCCAATAGCC
121 AAAGCAAAAA GTTGCCACCA GGTCCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGGTTGGTGG ACTACCACAC CATGTCCTTA GAGATTTAGC CAAAAAATAT GGACCACTTA
241 TGCACCTTCA ATTAGGTGAA GTTCTGCGG TTGTGGTTAC TTCTCCTGAT ACGGCAAAAG
301 AAGTATTAAA AACTCATGAC ATCGCTTTTG CGTCTAGGCC TAGCCTTTTG GCCCGGAGA
361 TTGTCTGTTA CAATAGGTCT GATCTAGCCT TTTGCCCCTA TGGCGACTAT TGGAGACAAA
421 TGCCTAAAAT ATGTGTCTTG GAAGTGCTCA GTGCCAAGAA TGTTCCGACA TTTAGCTCTA
481 TTAGGCGGAA TGAAGTTCTT CGTCTCATTA ATTTTATCCG GTCATCTTCT GGTGAACCTA
541 TTAATGTTAC GGAAAGGATC TTTTGTTC AAGCTCCAT GACATGTAGA TCAGCGTTTG
601 GGCAAGTGTT CAAAGAGCAA GACAAATTTA TACAATAAT TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGTGGCT GACATATTCC CTTCACTGAA GTTCTTTCAT GTGCTCAGTG
721 GAATGAAGGG TAAGATTATG AATGCACACC ATAAGGTAGA TGCCATTGTT GAGAATGTCA
781 TCAATGAGCA CAAGAAAAAT CTTGCAATTG GGAAACTAA TGGAGCGTTA GGAGGTGAAG
841 ATTTAATTGA TGTTCTTCTA AGACTTATGA ATGATGGAGG CCTTCAATTT CCTATCACCA
901 ACGACAACAT CAAAGCCATA ATTTTGTACA TGTTTGCTGC CGGGACAGAG ACTTCATCGT
961 CAACAATTGT GTGGGCTATG GTAGAAATGG TGAAAAATCC AGCCGTATTC GCGAAAGCTC
1021 AAGCAGAAGT AAGAGAAGCA TTTAGAGGAA AAGAACTTT CGATGAAAAT GATGTGGAGG
1081 AGCTAAACTA CCTAAAGTTA GTAATAAAG AAACCTCTAG ACTTCATCCA CCGGTTCCAC
1141 TTTTGCTCCC AAGAGAATGT AGGGAAGAGA CAAATATAAA CGGCTACACT ATTCCTGTAA
1201 AGACCAAAGT CATGGTTAAT GTTTGGGCTT TGGGAAGAGA TCCAAAATAT TGGAATGACG
1261 CAGAAACTTT TATGCCAGAG AGATTTGAGC AGTGCTCTAA GGATTTTGTT GGTAAATAAT
1321 TTGAATATCT TCCATTGTTT GCGGAAGGA GGATTTGTCC TGGGATTCG TTTGGCTTAG
1381 CTAATGCTTA TTTGCCATTG GCTCAATTAC TATATCACTT CGATTGGAAA CTCCCTGCTG
1441 GAATCGAACC AAGCGACTTG GACTTGACTG AGTTGGTTGG AGTAACTGCC GCTAGAAAAA
1501 GTGACCTTTA CTGTTGTCG ACTCCTTATC AACCTCCTCA AAAGTGATTT AATGGTTTCA
1561 AGTTTTTATT TCCTAGCAAA CCCCACTATT GTCCTATCTT TCTTTTGGTG TTTTCGGTTT
1621 TATCTACTCT AATACATGCA TCTTTTACCA TATAGGAATG TACCATGTTG TCG

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SEQ. ID. NO. 212

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1 MQLRFEEYQL TKMQFFSLVS IFLEFLSFLFL LRIWKNSNSQ SKKLPPGPWK LPILGSMMLHM
61 VGGLPHHVLR DLAKKYGPLM HLQLGEVSAV VVTSPDTAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSDLAF CPYGDYWRQM RKICVLEVL AKNVRTFSSI RRNEVLRLIN FIRSSSGEPI
181 NVTERIFLFT SSMTCRSAFG QVFKEQDKFI QLIKEVILLA GGFDVADIFP SLKFLHVLGS
241 MKGKIMNAHH KVDIVENVI NEHKKNLAIK KTNALGGED LIDVLLRLMN DGGGLQFPITN
301 DNIKAIIFDM FAAGTETSSS TIVWAMVEMV KNPVAFKAQ AEVREAFRGK ETFDENDVEE
361 LNYLKLVIKE TLRLHPPVPL LLPRECREET NINGYTIPVK TKVMNVWAL GRDPKYWNDA
421 ETFMFERFEQ CSKDFVGNNF EYLPFGGRR ICPGISFGLA NAYLPLAQLL YHFDWKLPAQ
481 IEPSDLDLTE LVGVTAARKS DLYLVATPYQ PPQK

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FIG. 107

NAME D209-AH10
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 213

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1 ATATGCAACT GAGATTTGAA GAATACCAAC TAACCAAAGT GCAGTTCTTC AGCTTGGTTT
61 CCATTTTCCT ATTTCTATCT TTCCTCTTTT TGTTAAGGAT ATGGAAGAAC TCCAATAGCC
121 AAAGCAAAAA GTTGCCACCA GGTCCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGGTTGGTGG ACTACCACAC CATGTCCTTA GAGATTTAGC CAAAAAATAT GGACCACTTA
241 TGCACCTTCA ATTAGGTGAA GTTCTGCGG TTGTGGTTAC TTCTCCTGAT ACGGCAAAAG
301 AAGTATTAAA AACTCATGAC ATCGCTTTTG CGTCTAGGCC TAGCCTTTTG GCCCGGAGA
361 TTGTCTGTTA CAATAGGTCT GATCTAGCCT TTTGCCCCTA TGGCGACTAT TGGAGACAAA
421 TGCCTAAAAT ATGTGTCTTG GAAGTGCTCA GTGCCAAGAA TGTTCCGGACA TTTAGCTCTA
481 TTAGGCGGAA TGAAGTTCTT CGTCTCATTA ATTTTATCCG GTCATCTTCT GGTGAACCTA
541 TTAATGTTAC GGAAAGGATC TTTTGTGTTA CAAGCTCCAT GACATGTAGA TCAGCGTTTG
601 GGCAAGTGTT CAAAGAGCAA GACAAATTTA TACAATAAT TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGTGGCT GACATATTCC CTTCACTGAA GTTCTTTCAT GTGCTCAGTG
721 GAATGAAGGG TAAGATTATG AATGCACACC ATAAGGTAGA TGCCATTGTT GAGAATGTCA
781 TCAATGAGCA CAAGAAAAAT CTTGCAATTG GGAAAACTAA TGGAGCGTTA GGAGGTGAAG
841 ATTTAATTGA TGTTCTCTA AGACTTATGA ATGATGGAGG CCTTCAATTT CCTATACCA
901 ACGACAACAT CAAAGCTATA ATTTTGTGACA TGTTTGCTGC CGGGACGGAG ACTTCATCGT
961 CAACAATTGT GTGGGCTATG GTAGAAATGG TGA AAAATCC AGCCGTATTC GCGAAAGCTC
1021 AAGCAGAAGT AAGAGAAGCA TTTAGAGGAA AAGAACTTT CGATGAAAAT GATGTGGAGG
1081 AGCTAAACTA CCTAAAGTTA GTAATAAAG AAACCTAAG ACTTCATCCA CCGGTTCCAC
1141 TTTTGCTCCC AAGAGAATGT AGGGAAGAGA CAAATATAAA CGGCTACACT ATTCCTGTAA
1201 AGACCAAAGT CATGGTTAAT GTTTGGGCTT TGGGAAGAGA TCCAAAATAT TGGAATGACG
1261 CAGAACTTTT TATGCCAGAG AGATTTGAGC AGTGCTCTAA GGATTTTGTT GGTAATAATT
1321 TTGAATATCT TCCATTTGGT GCGGAAGGA GGATTTGTCC TGGGATTCG TTTGGCTTAG
1381 CTAATGCTTA TTTGCCATTG GCTCAATTAC TATATCACTT CGATTGGAAG CTCCCTGCTG
1441 GAATCGAACC AAGCGACTTG GACTTGACTG AGTTGGTTGG AGTAACTGCC GCTAGAAAAA
1501 GTGACCTTTA CTTGGTTGCG ACTCCTTATC AACCTCCTCA AAAGTGATTT AATGGTTTCA
1561 AGTTTTTTAT TCCTAGCAAA CCCCCTATT GTCCTATCTT TCTTTTGGTG TTTTCGGTTT
1621 TATCTACTCT AATACATGCA TCTTTTACCA TATAGGAATG TACCATGTTG TCG

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SEQ. ID. NO. 214

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1 MQLRFEEYQL TKVQFFSLVS IFLFLSFLFL LRIWKNSNSQ SKKLPPGPWK LPILGSM LHM
61 VGGLPHHVLR DLAKKYGPLM HLQLGEVSAV VVTSPDTAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSDLAF CPYGDYWRQM RKICVLEVL AKNVRTFSSI RRNEVLRLIN FIRSSSGEPI
181 NVTERIFLFT SSMTCSRSAFG QVFKEQDKFI QLIKEVILLA GGFDVADIFP SLKFLHVL SG
241 MKGKIMNAHH KVDAIVENVI NEHKKNLAIG KTNALGGED LIDVPLRLMN DGG LQFPITN
301 DNIKAIIFDM FAAGTETSSS TIVWAMVEMV KNPVAFKAQ AEVREAFRGK ETFDENDVEE
361 LNYLKLVIKE TLRLHPPVPL LLPRECREET NINGYTIPVK TKVMNVNVAL GRDPKYW NDA
421 ETFMPEPFEQ CSKDFVGNNF EYLPFGGRR ICPGISFGLA NAYLPLAQLL YHFDWKL PAG
481 IEPSDLDLTE LVGVTAARKS DLYLVATPYQ PPQK

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FIG. 108

NAME D87A-AF3
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 215

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1 GAAATGGGAA ATGCTCACAA CAGCAAAATT GCAGCAATCT GTTTGATAAT TTTCTTGGTA
61 TATAAAGCAT GGGAAATTGTT GAAGTGGATA TGGATTAAGC CAAAGAAACT GGAGAGTTGC
121 CTCAGAAAAC AGGGACTCAA AGGAAATTCC TACAGGCTAT TCTATGGAGA TATGAAAGAA
181 TTGTCCAAAA GTCTCAAGGA AATCAATTCA AAGCCCATCA TCAATCTATC AAATGAAGTA
241 GCCCCAAGAA TCATTCCCTTA TTATCTTGAA ATCATCCAAA AATATGGTAA AAGATGTTTT
301 GTTTGGCAAG GACCAACCCC CGCAATATTA ATAACAGAGC CAGAATTAAT AAAGGAGATA
361 TTTGGTAAGA ACTATGTTTT TCAGAAGCCT AATAATCCCA ACCCACTGAC CAAGTTATTG
421 GCTCGAGGTG TTGTAAGCTA CGAGGAAGAA AAATGGGCAA AACACAGAAA GATCTTAAAC
481 CCTGCCTTTC ATATGGAGAA GTTGAAGCAT ATGCTACCAG CATTTTACTT GAGCTGTAGT
541 GAGATGCTGA ACAAATGGGA GGAGATTATC CCAGTAAAAG AATCAAATGA GTTGGACATT
601 TGGCCTCATC TTCAAAGAAT GACAAGTGAT GTGATTTCTC GTGCTGCCTT TGGTAGTAGC
661 TACGAAGAAG GAAGAAGAAT ATTTGAACTT CAAGAAGAAC AAGCTGAGTA TCTAACGAAG
721 ACATTCGAAT CAGTTTATAT CCCAGGTTCC AGATTTTTTC CCAATAAAAT GAACAAAAGA
781 ATGAAAGAAT GTGAAAAGGA AGTACGAGAA ACAATTACGT GTCTAATTGA CAACAGATTA
841 AAGGCAAAAG AAGAAGGCAA TGGCAAGGCC CTCAATGATG ACCTACTGGG TATATTATTA
901 GAGTCAAATT CTATAGAAAT TGAAGAACAT GGTAACAAGA AGTTTGGAAT GAGTATACCT
961 GAAGTAATTG AAGAGTGCAA ATTATTCTAT TTTGCTGGCC AAGAGACTAC ATCAGTATTG
1021 CTTGTGTGGA CACTGATTTT GTTAGGGAGA AATCCAGAAT GGCAGGAACG TGCTAGAGAG
1081 GAAGTTTTTC AAGCCTTTGG AAGTGATAAA CCAACTTTTG ACGAATTATA TCGCTTGAAA
1141 ATTGTGACGA TGATTTTGTA CGAGTCTTTA AGGTTATATC CACCAATAGC AACTCGTACT
1201 CGAAGGACTA ATGAAGAAAC AAAATTAGGG GAACTAGATT TACCAAAGGG TGCCTGCTC
1261 TTTATACCAA CAATCTTATT ACATCTTGAC AAGGAAATTT GGGGTGAAGA TGCAGATGAG
1321 TTCAATCCGG AGAGATTTAG CGAAGGGGTG GCAAAGGCAA CAAAGGGGAA AATGACATAT
1381 TTTCCATTTG GTGCAGGACC GCGAAAATGC ATTGGGCAAA ACTTCGCGAT TTTGGAAGCA
1441 AAAATGGCTA TAGCTATGAT TCTACAACGC TTCTCCTTCG AGCTCTCTCC ATCTTATACA
1501 CACTCTCCAT AACTGTGGT CACTTTGAAA CCCAAATATG GTGCTCCCCT AATAATGCAC
1561 AGGCTGTAGT CCTGTGAGAA

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SEQ. ID. NO. 216

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1 MGNAHNSKIA AICLIIFLVY KAWELLKWIW IKPKKLESCL RKQGLKGSY RLFYGDMKEL
61 SKSLKEINSK PIINLSNEVA PRIIPYYLEI IQKYGKRCFV WQGPTPAILI TEPELIKEIF
121 GKNYVFQKPN NPNPLTKLLA RGVVSYYYYE WAKHRKILNP AFHMEKLKHM LPAFYLSLSE
181 MLNKWEEIIP VKESNELDIW PHLQRTSDV ISRAAFGSSY EEGRRIFELQ EEQAEYLTKT
241 FNSVYIPGSR FFPNKMNMKRM KECEKEVRET ITCLIDNRLK AKEEGNGKAL NDDLGLILLE
301 SNSIEIEEHG NKKFGMSIPE VIEECKLEYF AGQETTSVLL VWTLLILLGRN PEWQERAREE
361 VFQAFGSDKP TFDELYRLKI VTMIYESLR LYPPIATRTR RTNEETKLGE LDLPKGALLF
421 IPTILLHLDK EIWGEDADEF NPERFSEGVA KATKGKMTYF PFGAGPRKCI QONFAILEAK
481 MAIAMILQRF SFELSPSYTH SPYTVVTLKP KYGAPLIMHR L

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FIG. 109

NAME D208-AC8
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 217

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1 ATGCTTTCTC CCATAGAAGC CTTTGTAGGA CTAGTAACCT TCACATTTCT CTTATACTTC
61 CTATGGACAA AAAAATCTCA AAAACTTCCA AAACCCTTAC CACCGAAAAT CCCC GGAGGA
121 TGGCCGGTAA TCGGCCATCT TTTTCACTTC AATAACGACG GCGACGACCG TCCATTAGCT
181 CGAAAGCTCG GAGACTTAGC TGATAAATAC GGCCCCGTTT TCACTTTTCG GCTAGGTCTT
241 CCCCTTGTGC TAGTTGTAAG CAGTTACGAA GCTATAAAAG ATTGCTTCTC TACAAATGAT
301 GCCATTTTCT CCAATCGTCC AGCTCTTCTT TACGGCGAAT ACCTTGGCTA CAATAATACA
361 ATGCTTTTTT TAGCAAATTA CGGACCTTAC TGGCGAAAAA ATCGTAAATT AGTCATTTCAG
421 GAAGTTCTCT CTGCTAGTCG TCTCGAAAAA TTCAAACAAG TGAGATTTCAC CAGAATTCAA
481 ACGAGCATTG AGAATTTATA CACTCGAATT AATGGAAATT CGAGTACGAT AAATCTAACT
541 GATTGGTTAG AAGAATTGAA TTTTGGTCTG ATCGTGAAAA TGATCGCTGG GAAAAATTAT
601 GAATCCGGTA AAGGAGATGA ACAAGTGGAA AGATTTAAGA ATGCGTTTAA GGATTTTATG
661 GTTTTATCAA TGGAATTTGT ATTATGGGAT GCATTTCCAA TTCCATTATT TAAATGGGTG
721 GATTTTCAAG GTCATATTAA GGCAATGAAA AGGACATTTA AGGATATAGA TTCTGTTTTT
781 CAGAACTGGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TAGAGGTTGG TGCAGAAGGG
841 AATGAACAAG ATTTTCATTGA TGTGGTGCTT TCAAAATTGA GTAAAGAATA TCTTGATGAA
901 GGTACTCTC GTGATACTGT CATTAAAGCA ACAGTTTTTA GTTTGGTCTT GGATGCAGCA
961 GACACAGTTG CTCTTCACAT AAATTGGGGA ATGACATTAT TGATAAACAA TCAAAATGCC
1021 TTGATGAAAG CACAAGAAGA GATAGACACA AAAGTTGGTA AGGATAGATG GGTAGAAGAG
1081 AGTGATATTA AGGATTTAGT ATACCTCCAA GCTATTGTTA AAAAGGTGTT ACGATTATAT
1141 CCACCAGGAC CTTTGTTAGT ACCACATGAA AATGTAAAGG ATTGTGTTGT TAGTGGATAT
1201 CACATTCCTA AAGGGACTAG ATTATTGCGA AACGTCATGA AACTGCAGCG CGATCCTAAA
1261 CTCTTGTCAT ATCCTGATAA GTTCGATCCA GAGAGATTCA TCGCTGGTGA TATTGACTTC
1321 CGTGGTCACC ACTATGAGTT TATCCCATTT GGTCTGGGAA GACGATCTTG TCCGGGGATG
1381 ACTTATGCAT TGCAAGTGGA ACACCTAACA ATGGCACATT TAATCCAGGG TTTCAATTAC
1441 AAAACTCCAA ATGACGAGGC CTTGGATATG AAGGAAGGTG CAGGCATAAC AATACGTAAG
1501 GTAAATCCAG TGGAATTGAT AATAACGCCT CGCTTGGCAC CTGAGCTTTA CTAACCTA
1561 AGATGTTTCA TCTTGGTTGA TCATTGT

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SEQ. ID. NO. 218

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1 MLSPIEAFVG LVTFTFLLYF LWTKKSQKLP KPLPPKIPGG WPVIGHLFHF NNDGDDRPLA
61 RKLGLADKY GPVFTFRLGL PLVLVSSYE AIKDCFSTND AIFSNNRPLL YGEYLGYNNT
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKQVRFTRIQ TSIKNLYTRI NGNSSTINLT
181 DWLEELNFGL IVKMIAGKNY ESGKGDEQVE RFKNAFKDFM VLSMEFVLWD AFPIPLFKWV
241 DFQGHKAMK RTFKDIDSVF QNWLEEHINK REKIEVGAEG NEQDFIDVVL SKLSKEYLDE
301 GYSRDTVIKA TVFSLVLDA DTVALHINWG MTLINNQNA LMKAQEEIDT KVGKDRWVEE
361 SDIKDLVYLQ AIVKKVLRLY PPGPLLVPHE NVKDCVVSgy HIPKGTRLF NVMKLQRDPK
421 LLSNPKDFDP ERFIAGDIDF RGHHYEFIPF GSGRRSCPGM TYALQVEHLT MAHLIQGFNY
481 KTPNDEALDM KEGAGITIRK VNPVELIITP RLAPELY

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FIG. 110

NAME D215-AB5
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 219

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1 GGGAGAAGGC CTTCAATATG GAGATACCAT ATTACAGCTT AAAAATTGCA ATTTCTTCAT
61 TTGCAATTAT CTTTGTACTA AGATGGGCAT GGAAAATCTT GAATTATGTG TGGTTAAAAC
121 CAAAAGAATT GGAGAAATAC CTCAGACAGC AGGGTTTCAA AGGAAACTCT TACAAATTCT
181 TGTTTGGGGA TATGAAAGAG ACGAAGAAAA TGGGTGAAGA AGCTATGTCT AAGCCAATCA
241 ATTTCTCTCA TGACATGATT TGGCCTAGAG TTATGCCATT CATCCACAAA ACCATCACCA
301 ATTATGGTAA GAATTGTATT GTGTGGTTTG GGCCAAGACC AGCAGTCCTG ATCACAGACC
361 CGGAACCTGT AAAGGAGGTG CTAACGAAGA ATTTTCGTCTA TCAGAAGCCG CTTGGCAATC
421 CACTCACAAA GTTGGCAGCA ACTGGAATTG CAGGCTATGA AACAGATAAA TGGGCTACAC
481 ATAGAAGGCT TCTCAATCCT GCTTTTCACC TTGACAAGTT GAAGCATATG CTACCTGCAT
541 TCCAATTTAC TGCTAGTGAG ATGTTGAGCA AATTGGAGAA AGTTGTTTCA CCAAACGGAA
601 CAGAGATAGA TGTGTGGCCA TATTTACAAA CTTTGACAAG TGATGCCATT TCAAGAAGTG
661 CGTTTGGAAG TAGTTATGAA GAAGGAAGAA AGATTTTTGA CCTTCAAAAA GAACAACTTT
721 CACTAATTCT AGAAGTTTCA CGCACAAATAT ATATTCCAGG ATGGAGGTTT TTGCCAACGA
781 AAAGGAACAA AAGGATGAAG CAAATATTTA ATGAAGTACG AGCACTGGTA TTTGGAATTA
841 TTAAGAAAAAG GATGAGTATG ATTGAAAATG GAGAAGCACC TGATGATTTA TTGGGAATAT
901 TATTGGCATC CAATTTAAAA GAAATCCAAC AACATGGAAA CAACAAGAAA TTTGGTATGA
961 GTATTGATGA GGTGATTGAA GAGTGTAAC TCTTCTATTT TGCTGGGCAA GAGACTACTT
1021 CATCTTTACT TGTATGGACT ATGATTTTGT TGTGCAAATA TCCTAATTGG CAAGATAAAG
1081 CTAGAGAAGA GGTTTTGCAA GTGTTTGGGA GTAGGGAAGT TGACTATGAC AAGTTGAATC
1141 AGCTAAAAAT AGTAACTATG ATCTTAAACG AGGTCTTAAG GTTGATATCCA GCAGGATATG
1201 TGATTAATCG AATGGTAAAC AAAGAAACAA AGTTAGGGAA TTTGTGTTTA CCAGCCGGCG
1261 TACAGCTCGT GTTACCAACA ATGTTGTTGC AACATGATAC TGAAATATGG GGAGATGATG
1321 CAATGGAGTT CAATCCAGAG AGATTTAGTG ATGGAATATC CAAAGCAACA AAAGGAAAAC
1381 TTGTGTTTTT TCCATTTAGT TGGGGTCCAA GAATATGTAT TGGGCAAAAT TTTGCTATGT
1441 TAGAGGCTAA AATGGCAATG GCTATGATTC TGAAAACCTA TGCATTTGAA CTCTCTCCAT
1501 CTTATGCTCA TGCTCCTCAT CCACTACTAC TTCAACCTCA ATATGGTGCT CAATTAATTT
1561 TGTACAAGTT GTAGATATGG TCAATCTGGA ACTTGTTATG GAACTTTTAT CATCGTAATC
1621 AACCATATTG AGGG

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SEQ. ID. NO. 220

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1 MEIPYYSLKI AISSFAIIFV LRWAWKILNY VWLKPKELEK YLRQQGFKGN SYKFLFGDMK
61 ETKKMGEEAM SKPINFSHDM IWPRVMPFIH KTITNYGKNC IVWFGPRPAV LITDPELVKE
121 VLTKNFVYQK PLGNPLTKLA ATGIAGYETD KWATHRRLLN PAFHLDKLKH MLPAFQFTAS
181 EMLSKLEKVV SPNGTEIDVW PYLQTLTSDA ISRTAFGSSY EEGRKIFDLQ KEQLSLILEV
241 SRTIYIPGWR FLPTKRNRKM KQIFNEVRAL VFGIIKKRMS MIENGEAPDD LLGILLASNL
301 KEIQQHGNK KFGMSIDEVI EECKLFYFAG QETTSSLLVW TMILLCKYPN WQDKAREEVL
361 QVFGSREVDY DKLNQLKIVT MILNEVLRLY PAGYVINRMV NKETKLG NLC LPAGVQLVLP
421 TMLLQHDTEI WGDDAMEFNP ERFSDGSKA TKGKLVFFPF SWGPRICIGQ NFAMLEAKMA
481 MAMILKTYAF ELSPSYAHAP HPLLLQPQYG AQLILYKL

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FIG. 111

NAME D103-AH3
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 221

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1 ATGGTTTTTC CCATAGAAGC CTTTGTAGGA CTAGTAACCT TCACATTTCT CTTATACTTC
61 CTATGGACAA AAAAATCTCA AAAACTTCCA AAACCCCTAC CACCGAAAAT CCCC GGAGGA
121 TGGCCGGTAA TCGGCCACCT TTTTCACTTC AATAACGACG GCGACGACCG TCCATTAGCT
181 CGAAACTCG GAGACTTAGC TGATAAATAC GGCCCCGTTT TCACTTTTCG GCTAGGTCTT
241 CCCCTTGTGC TAGTTGTAAG CAGTTACGAA GCTACAAAAG ATTGCTTCTC TACAAATGAC
301 GCCATTTTCT CCAATCGTCC AGCTTTTCTT TACGGCGAAT ACCTTGGCTA CAATAATACA
361 ATGCTTTTTT TAGCAAATTA CGGACCTTAC TGGCGAAAAA ATCGTAAATT AGTCATTGAG
421 GAAGTTCTCT CTGCTAGTCG TCTCGAAAAA TTCAAACAAG TGAGATTGAC CAGAATTCAA
481 ACGAGCATTG AGAATTTATA CACTCGAATT AATGGAAATT CGAGTACGAT AAATCTAACT
541 GATTGGTTAG AAGAATTGAA TTTTGGTCTG ATCGTGAAAA TGATCGCTGG GAAAAATTAT
601 GAATCCGGTA AAGGAGATGA ACAAGTGGAA AGATTTAAGA ATGCGTTTAA GGATTTTATG
661 GTTTTATCAA TGGAATTTGT ATTATGGGAT GCATTTCCAA TTCCATTATT TAAATGGGTG
721 GATTTTCAAG GTCATATTAA GACAATGAAA AGGACATTTA AGGATATAGA TTCTGTTTTT
781 CAGAACTGGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TGGAGGTTGG TGCAGAAGGG
841 AATGAACAAG ATTTTCATTGA TGTGGTGCTT TCAAAATTGA GTAAAGAATA TCTTGATGAA
901 GGTACTCTC GTGATACTGT CATTAAAGCA ACAGTTTTTA GTTTGGTCTT GGATGCAGCA
961 GACACAGTTG CTCTTCACAT AAATTGGGGA ATGACATTAT TGATAAACAA TCAAAATGCC
1021 TTGATGAAAG CACAAGAAGA GATAGACACA AAAGTTGGTA AGGATAGATG GGTAGAAGAG
1081 AGTGATATTA AGGATTTAGT ATACCTCCAA GCTATTGTTA AAAAGGTGTT ACGATTATAT
1141 CCACCAGGAC CTTTGTAGT ACCACATGAA AATGTAAAGG ATTGTGTTGT TAGTGGATAT
1201 CACATTCCTA AAGGGACTAG ATTATTCGCA AACGTCATGA AACTGCAGCG CGATCCTAAA
1261 CTCTTGTCAT ATCCTGATAA GTTCGATCCA GAGAGATTCA TCGCTGGTGA TATTGACTTC
1321 CGTGGTCACC ACTATGAGTT TATCCCATCT GGTCTGGGAA GACGATCTTG TCCGGGGATG
1381 ACTTATGCAT TGCAAGTGGA ACACCTAACA ATGGCACATT TAATCCAGGG TTTCAATTAC
1441 AAAACTCCAA ATGACGAGGT CTTGGATATG AAGGAAGGTG CAGGCATAAC AATACGTAAG
1501 GTAAATCCAG TGGAATTGAT AATAACGCCT CGCTTGGCAC CTGAGCTTTA CTA AACCTA
1561 AGATCTTTCA TCTTGTTGA TCATTGTTA ATA

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SEQ. ID. NO. 222

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1 MVFPIEAFVG LVTFTFLLYF LWTKKSQKLP KPLPPKIPGG WPVIGHLFHF NNDGDDRPLA
61 RKLGLADKY GPVFTFRLGL PLVLVVSSYE ATKDCFSTND AIFS NRPAFL YGEYLGYNNT
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKQVRFTRIQ TSIKNLYTRI NGNSSTINLT
181 DWLEELNFGL IVKMIAGKNY ESGKGDEQVE RFKNAFKDFM VLSMEFVLWD AFPIPLFKWV
241 DFQGHIKTMK RTFKDIDSVF QNWLEEHINK REKMEVGAEG NEQDFIDVVL SKLSKEYLDE
301 GYSRDTVIAK TVFSLVLDAE DTVALHINWG MTL LINNQN LMKAQEEIDT KVGKDRWVEE
361 SDIKDLVYLQ AIVKKVLRLY PPGPLLVPHE NVKDCVVSgy HIPKGT RLFA NVMKLQRDPK
421 LLSNPDKDFP ERFIAGDIDF RGHHYEFIPS GSGRRSCPGM TYALQVEHLT MAHLIQGFNY
481 KTPNDEV LDM KEGAGITIRK VNPVELIITP RLAPELY

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FIG. 112

NAME D208-AD9
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 223

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1 ATGCTTTCTC CCATAGAAGC CATTGTAGGA CTAGTAACCT TCACATTTCT CTTCTTCTTC
61 CTATGGACAA AAAAATCTCA AAAACCTTCA AAACCCTTAC CACCGAAAAT CCCC GGAGGA
121 TGGCCGGTAA TCGGCCATCT TTTCCACTTC AATGACGACG GCGACGACCG TCCATTAGCT
181 CGAAAACCTCG GAGACTTAGC TGACAAATAC GGCCCCGTTT TCACTTTTCG GCTAGGCCTT
241 CCCCTTGTCT TAGTTGTAAG CAGTTACGAA GCTGTAAAAG ACTGTTTCTC CACAAATGAC
301 GCCATTTTTT CCAATCGTCC AGCTTTTCTT TACGGCGATT ACCTTGGCTA CAATAATGCC
361 ATGCTATTTT TGGCCAATTA CGGACCTTAC TGGCGAAAAA ATCGAAAATT AGTTATTCAG
421 GAAGTTCTCT CCGCTAGTCG TCTCGAAAAA TTCAAACACG TGAGATTTGC AAGAATTCAA
481 GCGAGCATGA AGAATTTATA TACTCGAATT GATGGAAATT CGAGTACGAT AAATTTAACT
541 GATTGGTTAG AAGAATTGAA TTTTGGTCTG ATCGTGAAGA TGATCGCTGG AAAAAATTAT
601 GAATCCGGTA AAGGAGATGA ACAAGTGGAG AGATTTAAGA AAGCGTTTAA GGATTTTATG
661 ATTTTATCAA TGGAGTTTGT GTTATGGGAT GCATTTCCAA TTCCATTATT TAAATGGGTG
721 GATTTTCAAG GGCATGTTAA GGCTATGAAA AGGACTTTTA AAGATATAGA TTCTGTTTTT
781 CAGAATTGGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TGGAGGTTAA TGCAGAAGGG
841 AATGAACAAG ATTTTCATTGA TGTGGTGCTT TCAAAAATGA GTAATGAATA TCTTGGTGAA
901 GGTACTCTC GTGATACTGT CATTGAAGCA ACGGTGTTTA GTTTGGTCTT GGATGCAGCA
961 GACACAGTTG CTCTTCACAT AAATTGGGGA ATGGCATTAT TGATAAACAA TCAAAAGGCC
1021 TTGACGAAAG CACAAGAAGA GATAGACACA AAAGTTTGTA AGGACAGATG GGTAAAGAG
1081 AGTGATATTA AGGATTTGGT ATACCTCCAA GCTATTGTTA AAGAAGTGTT ACGATTATAT
1141 CCACCAGGAC CTTTGTTAGT ACCACACGAA AATGTAGAAG ATTGTGTTGT TAGTGGATAT
1201 CACATTCCTA AAGGGACAAG ATTATTGCGA AACGTCATGA AACTGCAACG TGATCCTAAA
1261 CTCTGGTCTG ATCCTGATAC TTTGATCCA GAGAGATTCA TTGCTACTGA TATTGACTTT
1321 CGTGGTCAGT ACTATAAGTA TATCCCGTTT GGTCTGGAA GACGATCTTG TCCAGGGATG
1381 ACTTATGCAT TGCAAGTGGA ACACCTAACA ATGGCACATT TGATCCAAGG TTTCAATTAC
1441 AGAACTCCAA ATGACGAGCC CTTGGATATG AAGGAAGGTG CAGGCATAAC TATACGTAAG
1501 GTAAATCCTG TGGAACGAT AATAGCGCCT CGCCTGGCAC CTGAGCTTTA TTAAAACCTA
1561 AGATGTTTCA TCTTGGTTGA

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SEQ. ID. NO. 224

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1 MLSPIEIVG LVTFTFLFFF LWTKKSQKPS KPLPPKIPGG WPVIGHLFHF NDDGDDRPLA
61 RKLGLADKY GPVFTFRLGL PLVLVSSYE AVKDCFSTND AIFS NRPAFL YGDYLGYNNA
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKHVRFARIQ ASMKNLYTRI DGN SSTINLT
181 DWLEELNFGL IVKMIAGKNY ESGKGDEQVE RFKKAFKDFM ILSMEFVLWD AFPIPLFKWV
241 DFQGHVKAMK RTFKDIDSVF QNWLEEHINK REKMEVNAEG NEQDFIDVVL SKMSNEYLGE
301 GYSRDTVIEA TVFSLVLDAA DTVALHINWG MALLINNQKA LTKAQEEIDT KVCKDRWVEE
361 SDIKDLVYLQ AIVKEVLRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLQRPK
421 LWSDPDTFDP ERFIATDIDF RGQYYKYIPF GPGRRSCPGM TYALQVEHLT MAHLIQGFNY
481 RTPNDEPLDM KEGAGITIRK VNPVELIIP RLAPELY

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FIG. 113

NAME D237-AD1
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 225

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1 TTTTCATATAC CTTTAGTACT CTTGAAATTT TCAAATAATG GTTTATCTTC TTTCTCCCAT
61 AGAAGCCATT GTAGGATTTG TAACCTTTTC ATTTCTATTC TACTTTCTAT GGACCAAAAA
121 ACAATCAAAA ATCTTAAACC CACTACCTCC AAAAATCCCA GGTGGATGGC CAGTAATCGG
181 CCATCTCTTT TATTTCAAGA ACAATGGCGA TGAAGATCGC CATTTTCTC AAAAATCGG
241 TGACTTAGCT GACAAATATG GTCCCGTCTT CACTTTCCGG TTAGGGTTTC GCCGTTTCTT
301 GGCGGTGAGT AGTTATGAAG CTATGAAAGA ATGCTTCACT ACCAATGATA TCCATTTCCG
361 CGATCGGCCA TCTTTACTCT ACGGAGAATA CCTTTGCTAT AATAACGCCA TGCTTGCTGT
421 TGCCAAATAT GGCCCTTACT GGAAAAAATA TCGAAAGTTA GTCAATCAAG AAGTTCTCTC
481 CGTTAGTCGG CTCGAAAAAT TCAAACATGT TAGATTTTCT ATAATTCAGA AAAATATTAA
541 ACAATTGTAT AATTGTGATT CACCAATGGT GAAGATAAAC CTTAGTGATT GGATAGATAA
601 ATTGACATTC GACATCATTT TGAAAATGGT TGTTGGGAAG AACTATAATA ATGGACATGG
661 AGAAATACTC AAAGTTGCTT TTCAGAAATT CATGGTCAA GCTATGGAGA TGGAGCTCTA
721 TGATGTTTTT CACATTCCAT TTTTCAAGTG GTTGGATCTT ACAGGGAATA TTAAGGCTAT
781 GAAACAAACT TTCAAAGACA TTGATAATAT TATCCAAGGT TGGTTAGATG AGCACATTAA
841 GAAGAGAGAA ACAAAGGATG TTGGAGGTGA AAACGAACAA GATTTTATAG ATGTGGTGCT
901 TTCCAAGATG AGCGACGAAC ATCTTGGCGA GGGTTACTCT CATGACACAA CCATCAAAGC
961 AACTGTATTC ACTTTGGTCT TGGATGCAAC AGACACACTT GCACTTCATA TAAAGTGGGT
1021 AATGGCGTTA ATGATAAACA ATAAGCATGT CATGAAGAAA GCACAAGAAG AGATGGACAC
1081 AATTGTTGGT AGAGATAGAT GGGTAGAAGA GAGTGATATC AAGAATTTGG TGTATCTCCA
1141 AGCAATTGTC AAAGAAGTAT TACGATTACA TCCACCCGCA CCTTTGTCAG TGCAACACCT
1201 ATCTGTAGAA GATTGTGTTG TCAATGGGTA CCATATTCCT AAGGGGACTG CACTACTTAC
1261 CAATATTATG AAACACAGC GAGATCCTCA AACATGGCCA AATCCTGATA AATTTCGATC
1321 AGAGAGATTC CTGACGACTC ATGCTACTAT TGACTACCGC GGGCAGCACT ATGAGTCGAT
1381 CCCCTTTGGT ACGGGGAGAC GAGCTTGTC CGCGATGAAT TATTCATTGC AAGTGGAACA
1441 CCTTTCAATT GCTCATATGA TCCAAGGTTT CAGTTTTGCA ACTACGACCA ATGAGCCTTT
1501 GGATATGAAA CAAGGTGTGG GTTTAACTTT ACCAAAGAAG ACTGATGTTG AAGTGCTAAT
1561 TACACCTCGC CTTCCTCCTA CGCTTTATCA ATATTAAGAT GTTTTGTTGT CGGGATTCGT
1621 TCTGATCAAT CCCTCAATG

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SEQ. ID. NO. 226

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1 MUYLLSPIEA IVGFVTFSL FYFLWTKQS KILNPLPPKI PGGWPVIGHL FYFKNNGDED
61 RHFSQKLGDL ADKYGPVFTF RLGFRRFLAV SSYEAMKECF TTNDIHFADR PSLLYGEYLC
121 YNNAMLAVAK YGPYWKKNRK LVNQEVLSVS RLEKFKHVRF SIIQKNIKQL YNCDSPMVKI
181 NLSDWIDKLT FDIILKMVVG KNYNNGHGEI LKVAFOKFMV QAMEMELYDV FHIPFFKWLD
241 LTGNIKAMKQ TFKDIDNIIQ GWLDEHIKKR ETKDVGGENE QDFIDVVL SK MSDEHLGEGY
301 SHDTTIKATV FTLVLDTDT LALHIKWVMA LMINNKHVMK KAQEEMDTIV GRDRWVEESD
361 IKNLVYLQAI VKEVLRHLPP APLSVQHLSV EDCVVNGYHI PKGTALLTNI MKLQRDPQTW
421 PNPDKFDPER FLTTHATIDY RGQHYESIPF GTGRRACPAM NYSLQVEHLS IAHHMIQGFSE
481 ATTTNEPLDM KQGVGLTLPK KTDVEVLITP RLPPTLYQY

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FIG. 114

NAME D125-AF11
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 227

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1 CTTTTTCTCC CCAAAAAAGA GCTCATTTC CTTGTCCCCA AAAATGGATC TTCTCTTACT
61 AGAGAAGACC TTAATTGGTC TCTTCTTTGC CATTTTAATC GCTATAATTG TCTCTAGACT
121 TCGTTCAAAG CGTTTTAAGC TTCCCCCAGG ACCAATCCCA GTACCAGTTT TTGGTAATTG
181 GCTTCAAGTT GGTGATGATT TAAACCACAG AAATCTTACT GATTTTGCCA AAAAATTTGG
241 TGATCTTTTC TTGTTAAGAA TGGGCCAGCG TAATTTAGTT GTTGTGTCAT CTCCTGAATT
301 AGCTAAAGAA GTTTTACACA CACAAGGTGT TGAATTTGGT TCAAGAACAA GAAATGTTGT
361 ATTTGATATT TTTACTGGAA AAGGTCAAGA TATGGTTTTT ACTGTATATG GTGAACACTG
421 GAGAAAAATG AGGAGAATTA TGACTGTACC ATTTTTTACT AATAAAGTTG TGCAGCAATA
481 TAGAGGGGGG TGGGAGTTTG AAGTGGCAAG TGTAATTGAG GATGTGAAGA AAAATCCTGA
541 ATCTGCTACT AATGGGATTG TATTAAGGAG GAGATTACAA TTGATGATGT ATAATAATAT
601 GTTTAGGATT ATGTTTGATA GGAGATTTGA GAGTGAAGAT GATCCTTTGT TTGTTAAGCT
661 TAAGGCTTTG AATGGTGAAA GGAGTAGATT GGCTCAGAGT TTTGAGTATA ATTATGGTGA
721 TTTTATTTCC ATTTTGAGGC CTTTTTTGAG AGGTTATTTG AAGATCTGTA AAGAAGTTAA
781 GGAGAAGAGG CTGCAGCTTT TCAAAGATTA CTTTGTTGAT GAAAGAAAGA AGCTTTCAAA
841 TACCAAGAGC TTGGACAGCA ATGCTCTGAA ATGTGCGATT GATCACATTC TTGAGGCTCA
901 ACAGAAGGGG GAGATCAATG AGGACAACGT TCTTTACATT GTTGAAAACA TCAATGTTGC
961 TGCTATAGAA ACCACATTAT GGTCAATTGA GTGGGGTATC GCCGAGTTAG TCAACCAACC
1021 TCACATCCAA AAGAAACTCC GCGACGAGAT TGACACAGTT CTTGGCCCAG GAGTGCAAGT
1081 GACTGAACCA GACACCCACA AGCTTCCATA CCTTCAGGCT GTGATCAAGG AGACGCTTCG
1141 TCTCCGTATG GCAATTCCTC TATTAGTCCC ACACATGAAC CTTACGATG CAAAGCTTGG
1201 CGGGTTTGAT ATTCCAGCAG AGAGCAAAAT CTTGGTTAAC GCTTGGTGGC TAGCTAACAA
1261 CCCGGCTCAT TGGGAAGAAAC CCGAAGAGTT CAGACCCGAG AGGTTCTTCG AAGAGGAGAA
1321 GCACGTTGAG GCCAATGGCA ATGACTTCAG ATATCTTCCG TTTGGCGTTG GTAGGAGGAG
1381 TTGCCCTGGA ATTATACTTG CATTGCCAAT TCTTGGCATT ACTTTGGGAC GTTTGGTTCA
1441 GAACTTTGAG CTGTTGCCTC CTCCAGGCCA GTCGAAGCTC GACACCACAG AGAAAGGTGG
1501 ACAGTTCAGT CTCCATATTT TGAAGCATTC CACCATTGTG TTGAAACCAA GGTCTTGCTG
1561 AACTTTCCTGA TCCTAATCAA TTAAGGGGTT GAAGAAATTT TATAATTATG

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SEQ. ID. NO. 228

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1 MDLLLLLEKTL IGLFFAILIA IIVSRLRSKR FKLPPGPIPV PVFGNWLQVG DDLNHRNLTD
61 FAKKFGDLFL LRMGQRNLVV VSSPELAKEV LHTQGVEFGS RTRNVVFDIF TGKGQDMVFT
121 VYGEHWRKMR RIMTVPFFTN KVVQQYRGGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNNMFRIM FDRRFESDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPFLRGYLYK
241 ICEVKEKRL QLFKDYFVDE RKKLSNTKSL DSNALKCAID HILEAQQKGE INEDNVLYIV
301 ENINVAAIET TLWSIEWGIA ELVNHPHIQK KLRDEIDTVL GPGVQVTEPD THKLPYLQAV
361 IKETLRLRMA IPLLVPHMNL HDAKLGGFDI PAESKILVNA WWLANNPAHW KKPEEFRPER
421 FFEEEKHVEA NGNDFRYLPF GVGRRSCPGI ILALPILGIT LGRLVQNFEL LPPPGQSKLD
481 TTEKGGQFSL HILKHSTIVL KPRSC

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FIG. 115

NAME D134-AE11
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 229

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1  AACAATAAAA ATGGAGACAT TATTTAACAT CAAAGTTGCA GTTTCATTAG TAATTGTGAT
61 AATTTTTCTG AGATGGGTAT GGAAATTCTT GAATTGGGTG TGGATTCAAC CAAAGAAAAT
121 GGAAAAAAGA CTAAAAATGG AAGGTTTCAA AGGAAGCTCA TATAAGCTAT TATTTGGAGA
181 TATGAAAGAA ATAAATACAA TGGTTGAAGA AGCCAAAACC AAGCCTATGA ATTTTACCAA
241 TGATTATGTG GCTAGAGTCT TGCCTCACTT CACAAAGTTG ATGCTCCAAT ATGGCAAGAA
301 TAGCTTTATG TGGTTAGGGC CAAAACCAAC AATGTTTATC ACAGACCCTG AACTAATAAG
361 GGAGATCTTG TCAAAAAGTT ACATATACCA GGAGATTCAA GGCAATCCAA TCACTAAGTT
421 GCTAGACAAA GGACTAGTAA GTTATGAAGC AGAGAAATGG GCTAAGCATA GAAAAATTAT
481 CAATCCTGCA TTTACCTTG ACAAGTTGAA GCATATGCTA CCATCATTCT ACTTGAGTTG
541 TTGTGACATG CTCAGAAAAT GGGAAAGTAT AGCTTCATCA GAGGGATCAG AAATAGACGT
601 GTGGCCTTTT CTGGAAACGT TGACAAGCGA TGCTATTTCA AGAACAGCTT TTGGTAGTAA
661 CTATGAAGAC GGGAGACAGA TATTTGAGCT TCAAAAAGAA CAAGCTGAGT TGATTTTACA
721 AGCAGCGCGA TGGCTTTACA TCCCCGGATG GAGGTTTGTG CCAACAAAGA GGAACAAGAG
781 GATGAAGCAA ATCGCTAAAG AAGTACGATC ATTAGTGTTG GGAATAATCA ATAAGAGAAT
841 AAGGGAAATG AAAGCAGGGG AAGCTGCAAA AGATGACTTA CTGGGAATAC TATTGGAATC
901 TAATTTCAAA GAAATCCAAA TGCACGGAAA CAAGAACTTT GGCATGACTA TCGACGAAGT
961 GATTGAAGAG TGCAAGTTAT TTTACTTTGC TGGGCAAGAA ACTACTTCAG TTTTGCTTGT
1021 TTGGACTTTG ATTTTACTGA GTAAGCATGT CGATTGGCAA GAAAGAGCTA GAGAAGAAGT
1081 TCATCAAGTC TTTGGAAGTA ACAAACCTGA TTATGACGCA TTGAATCAGT TGAAAGTTGT
1141 AACGATGATA TTCAACGAGG TTTTAAGGTT GTACCCACCG GGAATTACCA TAAGTCGAAC
1201 TGTACACGAG GATACCAAAT TAGGGAACCTT GTCATTGCCA GCAGGGATAC AGCTTGTGTT
1261 ACCTGCAATT TGGTTGCATC ATGACAATGA AATATGGGGA GATGATGCAA AGGAGTTCAA
1321 ACCAGAGAGG TTTAGTGAAG GAGTTAATAA AGCAACAAAG GGTAAATTTG CATATTTTCC
1381 ATTTAGTTGG GGACCAAGAA TATGTGTTGG ACTGAATTTT GCAATGTTAG AGGCAAAAAT
1441 GGCATTGCA TTGATTCTAC AACACTATGC TTTTGAGCTC TCTCCATCTT ATGCACATGC
1501 TCCTCATACA ATTATCACTC TGCAACCTCA ACATGGTGCT CCTTTGATTT TGCGCAAGCT
1561 GTAGCGCGGA TATATTGATT GGTATCTAC TGTAG

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SEQ. ID. NO. 230

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1  METLFNIKVA VSLVIVIIFL RWVWKFLNWV WIQPKKMEKR LKMEGFKGSS YKLLFGDMKE
61 INTMVEEAKT KPMNFTNDYV ARVLPHFTKL MLQYGKNSFM WLGPKPTMFI TDPELIREIL
121 SKSYIYQEIQ GNPITKLLAQ GLVSYEAEKW AKHRKIINPA FHLDKLKHL PSFYLSCCDM
181 LRKWESIASS EGSEIDVWPF LETLTSDAIS RTAFGSNYED GRQIFELQKE QAEILQAAAR
241 WLYIPGWRV FV PTKRNRKMKQ IAKEVRSVLV GIINKRIREM KAGEAAKDDL LGILLESNEFK
301 EIOMHGNKNF GMTIDEVIEE CKLFYFAGQE TTSVLLVWTL ILLSKHVDWQ ERAREEVHQQ
361 FGSNKPDYDA LNQLKVVTMI FNEVLRLYPP GITISRTVHE DTKLGNLSLP AGIQLVLPAL
421 WLHHDNEIWG DDAKEFKPER FSEGVNKATK GKFAFYFPFSW GPRICVGLNF AMLEAKMALA
481 LILQHYAFEL SPSYAHAPHT IITLQPQHGA PLILRKL

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FIG. 116

NAME D209-AH12
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 231

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1 ATATGCAACT GAGATTTGAA GAATACCAAC TAACCAAAT GCAGTTCTTC AGCTTGGTTT
61 CCATTTTCCT ATTTCTATCT TTCCTCTTTT TGTTAAGGAT ATGGAAGAAC TCCAATAGCC
121 AAAGCAAAAA GTTGCCACCA GGTCCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGGTTGGTGG ACTACCACAC CATGTCCTTA GAGATTTAGC CAAAAAATAT GGACCACTTA
241 TGCACCTTCA ATTAGGTGAA GTTTCTGCGG TTGTGGTTAC TTCTCCTGAT ACGGCAAAAG
301 AAGTATTAAA AACTCATGAC ATCGCTTTTG CGTCTAGGCC TAGCCTTTTG GCCCGGAGA
361 TTGTCTGTTA CAATAGGTCT GATCTAGCCT TTTGCCCTTA TGGCGACTAT TGGAGACAAA
421 TGCCTAAAAT ATGTGTCTTG GAAGTGCTCA GTGCCAAGAA TGTTCCGGACA TTTAGCTCTA
481 TTAGGCGGAA TGAAGTTCTT CGTCTCATT ATTTTATCCG GTCATCTTCT GGTGAACCTA
541 TTAATGTTAC GGAAAGGATC TTTTTGTTCA CAAGCTCCAT GACATGTAGA TCAGCGTTTG
601 GGCAAGTGTT CAAAGAGCAA GACAAATTTA TACAATAAT TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGTGGCT GACATATTCC CTTCACTGAA GTTTCTTCAT GTGCTCAGTG
721 GAATGAAGGG TAAGATTATG AATGCACACC ATAAGGTAGA TGCCATTGTT GAGAATGTCA
781 TCAATGAGCA CAAGAAAAAT CTTGCAATTG GGAAACTAA TGGAGCGTTA GGAGGTGAAG
841 ATTTAATTGA TGTTCTTCTA AGACTTATGA ATGATGGAGG CCTTCAATTT CCTATACCA
901 ACGACAACAT CAAAGCCATA ATTTTTGACA TGTTTGCTGC CGGGACAGAG ACTTCATCGT
961 CAACAATTGT GTGGGCTATG GTAGAAATGG TGAAAAATCC AGCCGTATTC GCGAAAGCTC
1021 AAGCAGAAGT AAGAGAAGCA TTTAGAGGAA AAGAACTTT CGATGAAAAT GATGTGGAGG
1081 AGCTAAACTA CCTAAAGTTA GTAATAAAG AACTCTAAG ACTTCATCCA CCGGTTCCAC
1141 TTTTGCTCCC AAGAGAATGT AGGGAAGAGA CAAATATAAA CGGCTACACT ATTCCTGTAA
1201 AGACCAAAGT CATGGTTAAT GTTTGGGCTT TGGGAAGAGA TCCAAAATAT TGGAAATGACG
1261 CAGAACTTT TATGCCAGAG AGATTTGAGC AGTGCTCTAA GGATTTTGTT GGTAAATAATT
1321 TTGAATATCT TCCATTGGT GGCGBAAGGA GGATTTGTCC TGGGATTCG TTTGGCTTAG
1381 CTAATGCTTA TTTGCCATTG GCTCAATTAC TATATCACTT CGATTGGAAA CTCCCTGCTG
1441 GAATCGAACC AAGCGACTTG GACTTGACTG AGTTGGTTGG AGTAACTGCC GCTAGAAAAA
1501 GTGACCTTTA CTTGGTTGCG ACTCCTTATC AACCTCCTCA AAAGTGATTT AATGGTTTCA
1561 AGTTTTTATT TCCTAGCAAA CCCCCTATT GTCCTATCTT TCTTTTGGTG TTTTCGGTTT
1621 TATCTACTCT AATACATGCA TCTTTTACCA TATAGGAATG TACCATGTTG TCG

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SEQ. ID. NO. 232

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1 MQLRFEEYQL TKMQFFSLVS IFLFLSFLFL LRIWKNSNSQ SKKLPPGPWK LPILGSMLHM
61 VGGLPHHVLRL DLAKKYGPLM HLQLGEVSAV VVTSPDTAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSDLAF CPYGDYWRQM RKICVLEVL AKNVRTFSSI RRNEVLRLIN FIRSSSGEPI
181 NVTERIFLFT SSMTCRSAFG QVFKEQDKFI QLIKEVILLA GGFDVADIFP SLKFLHVLSG
241 MKGKIMNAHH KVDAIVENVI NEHKKNLAI KTNALGGED LIDVLLRLMN DGGGLQFPITN
301 DNIKAIIFDM FAAGTETSSS TIVWAMVEMV KNPVAFKAQ AEVREAFRGK ETFDENDVEE
361 LNYLKLVIKE TLRLHPPVPL LLPRECREET NINGYTIPVK TKVMVNVWAL GRDPKYWNDA
421 ETFEMPERFEQ CSKDFVGNF EYLPFGGRR ICPGISFGLA NAYLPLAQLL YHFDWKLPAQ
481 IEPSDLDLTE LVGVTAARKS DLYLVATPYQ PPQK

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FIG. 117

NAME D221-BB8
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 233

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1 GAATTATTTT AC GTGTTGTA TTCCTTGTCT ATGATAGGAA GCTCGTTACC TCAGCGTACA
61 AACCCCAAAT AAAAAATGAA TTTCCTTGTG GTGTTAGCTT CTCTCTTTCT CTTTGTGTTC
121 CTAATGAGGA TAAGCAAAGC AAAAAAGCTC CCTCCAGGTC CAAGGAAACT GCCTATAATA
181 GGAAACCTTC ATCAAATTGG AAAATTACCT CATCGTTCAC TTCAAAAACT TTCTAATGAA
241 TATGGGGATT TCATTTTCTT GCAATTAGGT TCTGTACCGA CTGTGGTTGT CTCCTCAGCT
301 GACATTGCCC GAGAGATCTT TAGAACTCAC GACCTTGTTT TCTCAGGCCG TCCTGCTTTA
361 TATGCTGCCA GAAAACTTTC CTACAATTGC TACAACGTTT CATTTGCACC CTATGGTAAT
421 TACTGGAGAG AGGCTCGGAA AATTCTAGTG TTGGAGTTGC TAAGTACAAA GAGAGTACAA
481 AGTTTCGAGG CAATTCGAGA CGAGGAAGTA AGTAGCTTGG TTCAAATTAT CTGTAGTTCC
541 TTGAGCTCAC CTGTTAACAT AAGCACATTA GCACTATCCT TGGCAAATAA CGTTGTTTGT
601 CGAGTGGCTT TTGGGAAAGG GAGTGCTGAA GGAGGAAATG ATTATGAGGA TAGGAAGTTT
661 AATGAAATTC TATATGAGAC ACAAGAATTA TTGGGTGAGT TTAACGTTGC TGATTATTTT
721 CCTCGGATGG CATGGATTAA CAAAATAAAT GGGTTTGATG AACGATTGGA AAATAATTTT
781 AGGGAATTGG ATAAGTTTTA TGACAAAGTA ATAGAAGATC ATCTTAATTC ATGTAGCTGG
841 ATGAAACAAA GGGATGATGA AGACGTTATT GATGTATTGC TTCGAATTCA AAAGGATCCA
901 AGCCAAGAAA TTCCTCTCAA AGATGATCAC ATTAAGGGCC TTCTTGCGGA TATATTCATA
961 GCTGGAAC TG ATACATCATC AACAACCATA GAATGGGCAA TGTCAGAACT CATAAAAAAT
1021 CCAAGAGTCT TGAGAAAAGC TCAAGAGGAA GTTAGAGAAG TTTCTAAGGG AAAACAAAAG
1081 GTCCAAGAAA GTGATCTTTG CAAACTAGAT TACTTGAAT TGGTCATCAA AGAAACCTTT
1141 AGACTACACC CACCAGTCCC ATTACTAGTC CCTCGAGTAA CAACAGCCAG CTGCAAAATA
1201 ATGGAATACG AAATTCCAGT AAATACAAGA GTCTTCATCA ACGCGACAGC AAATGGGACA
1261 AATCCAAAAT ACTGGGAAAA TCCATTGACA TTCTTGCCAG AGAGATTCTT GGATAAGGAG
1321 ATTGATTACA GAGGCAAAAA TTTTGAGTTG TTGCCATTTG GGGCAGGGAG AAGAGGGTGT
1381 CCAGGAATTA ATTTTCAAT ACCACTTGTT GAGCTTGCAC TTGCTAATCT ATTGTTTCAT
1441 TATAATTGGT CACTTCCTGA AGGGATGCTA GCTAAGGATG TTGATATGGA AGAAGCTTTG
1501 GGGATTACCA TGCACAAGAA ATCTCCCCTT TGCTTAGTAG CTTCTCATTA TACTTGTTGA
1561 GATTTTAAAA GATTTTAGCA TAGCTATATA TAGCTTGAAG T

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SEQ. ID. NO. 234

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1 MNFLVVLASL FLFVFLMRIS KAKKLPPGPR KLPIIGNLHQ IGKLPHRSLQ KLSNEYGDFI
61 FLQLGSVPTV VVSSADIARE IFRTHDLVFS GRPALYAARK LSYNCYNVSF APYGNVWREA
121 RKILVLELLS TKRVQSFEAI RDEEVSSLVQ IICSSLSPV NISTLALS LA NNVVCRVAFG
181 KGS AEGGNDY EDRKFNEILY ETQELLGEFN VADYFPRMAW INKINGFDER LENNFRELDK
241 FYDKVIEDHL NSCSWMKQRD DEDVIDVLLR IQKDPSQEIP LKDDHIKGLL ADIFIAGTDT
301 SSTTIEWAMS ELIKNPRVLR KAQEEVREVS KGKQKVQESD LCKLDYLLKV IKETFR LHPP
361 VPLLVPRTT ASCKIMEYEI PVNTRVFINA TANGTNP KYW ENPLTFLPER FLDKEIDYRG
421 KNFELLPGA GRRGCPGINF SIPLVELALA NLLFHYNWSL PEGMLAKDVD MEEALGITMH
481 KKSPLCLVAS HYTC

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FIG. 118

NAME D222-BH4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 235

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1 CAAAGACTAA AAGATGTCGG TCTTTGCGGT TATTTTCATTC TTTCTACTTC TGTTTTTTCT
61 TTTCAAATCA TATTTGCCCT CATCGAAAAC AAAGAAAAAT TCTCCACCAT CTCCTTCAAA
121 GCTTCCGTTA ATCGGTCACT TCCACAAACT AGGCTTACAA CCTCACCGTT CTCTACAAAA
181 ACTATCAAAT GAACATGGTC CCATGATGAT GCTTCAATTC GGTAGCGTAC CTGTGCTTAT
241 CGCTTCATCA GCTGAAGCTG CTTCCGAAAT CATGAAAACC CAAGATTTGT CTTTTGCAAA
301 CAAACCCATT TCAACCATT C TAGCAAGCT TTTCTTCGGC CCAAAGGACG TTGCCTTCAC
361 CCCATATGGG GATTACTGGA GGAATGCCAG AAGCATTTGC ATGCTTCAGC TTTTGAACAA
421 CAAAAGAGTC CAGTCTTTTC GAAAGATAAG GGAAGAAGAG ACTTCTCTTC TTCTCCAGAG
481 GATTAGGGAA TCGCCAAATT CAGAAGTCGA TTTAACGGAG CTGTTGTTTT CCATGACTAA
541 CGACATAGTT TGCAGGGTGG CTTAGGAAG GAAGTATTGT GATGGGGAAG AAGGGAGGAA
601 ATTCAGTCT TTGCTGTTAG AGTTTGTGGA ATTGTTGGGA GTTTTAAACA TTGGAGATTA
661 CATGCCGTGG CTTGCATGGA TGAATCGTTT CAATGGTTTG AATGCCAAAG TGGATAAAGT
721 GGCGAAAAGAG TTTGATGCAT TTTTGGAGGA TGTGATTGAG GAACACGGAG GAAATAAGAA
781 ATCAGACACT GAAGCTGAAG GGGCAGACTT CGTGGATATA TTATTGCAGG TTCACAAAGA
841 AAACAAGGCT GGTTTTCAAG TCGAAATGGA TGCAATCAAA GCTATTATCA TGGATATGTT
901 TGCTGCGGGA ACAGATACAA CTTCCACGCT TCTAGAGTGG ACAATGAACG AGCTCTTAAG
961 AAATCCAAAA ACATTGAATA AGTTGAGAGA TGAGGTGAGA CAAGTGACTC AAGGGAAGAC
1021 AGAGGTAACA GAGGATGACT TAGAGAAAAT GCCGTATTTA AGAGCAGCAG TTAAGGAGAG
1081 TTCCAGGCTA CACTCTCCAG TGCCACTTCT ACCTCGAGAA GCAATTAAAG ATGCAAAGGT
1141 TTTGGGCTAC GATATAGCTG CAGGGACTCA AGTCCTCGTT TGTCCATGGG CAATCTCAAG
1201 AGATCCAAAC CTTTGGGAAA ATCCAGAGGA GTTTCAACCT GAAAGATTCT TGGATACTTC
1261 CATAGATTAC AAAGGCTTAC ATTTTCGAGT AATTCCATTC GGTGCAGGTC GGAGGGGTTG
1321 CCCTGGCATC ACATTTGCTA AGTTTGTGAA TGAGCTAGCA TTGGCAAGAT TAATGTTCCA
1381 TTTTGATTTT TCGCTACCAA AAGGAGTTAA GCATGAGGAT TTGGACGTGG AGGAAGCTGC
1441 TGGAATTACT GTTAGAAGGA AGTTCCCCCT TTTAGCCGTC GCCACTCCAT GCTCGTGATT
1501 TTTATTTT TAG AGCTCATTCT ATGCCTTAAA AACTACTACT AGATAACTGC GTAGTAAATA
1561 ATGCTTG GTA

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SEQ. ID. NO. 236

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1 MSVFAVISFF LLLFFLFKSY LPSSKTKKNS PPSPSKLPLI GHFHKLG LQP HRS LQKLSNE
61 HGPMMMLQFG SVPVLIASSA EAASEIMKTQ DLSFANKPIS TIPSKLFFGP KDVAFTPYGD
121 YWRNARSICM LQLLNKRVQ SFRKIREET SLLQRIRES PNSEVDLTEL FVSMNDIVC
181 RVALGRKYCD GEEGRKF KSL LLEFVELLGV FNIGDYPWL AWMNRFNGLN AKVDKVAKEF
241 DAFLEDVIEE HGGNKKSDTE AEGADFVDIL LQVHKENKAG FQVEMDAIKA IIMDMFAAGT
301 DTTSTLLEWT MNELLRNPKT LNKLRDEVRO VTQGKTEVTE DDLEKMPYLR AAVKESSRLH
361 SPVPLLPREA IKDAKVLGYD IAAGTQVLVC PWAISRD PNL WENPEEFQPE RFLDTSIDYK
421 GLHFELIPFG AGRRGCPGIT FAKFVNELAL ARLMFHFD FS LPKG VKHEDL DVEEAAGITV
481 RRFKPLLAVA TPCS

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FIG. 119

NAME D224-AF10
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 237

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1 ATTATCCATC ACCTAAAATG GAGAATTCTT GGGTTTTTCT AGCCTTGGCA GGGCTATCTG
61 CATTAGCTTT TCTCTGTAAA ATAATCACCT GTCGAAGACC GGTTAACCGG AAAATACCAC
121 CAGGTCCAAA ACCATGGCCC ATCATTTGGA ATTTGAACCT ACTTGGTCCT ATACCACATC
181 AATCTTTTGA CTTGCTTTCC AAAAAATATG GAGAGTTGAT GCTGCTGAAA TTTGGCTCCA
241 GGCCAGTTCT TGTTGCTTCA TCTGCTGAAA TGGCAAACA GTTTTTAAAA GTACATGATG
301 CTAATTTTCGC CTCCCGTCCT ATGCTAGCTG GTGGAAAGTA TACAAGCTAT AACTATTGTG
361 ACATGACATG GGCACCCTAT GGTCCCTATT GGCGCCAAGC ACGACGAATT TACCTTAACC
421 AGATATTTAC TCCGAAAAGG CTAGACTCGT TCGAGTACAT TCGTGTTGAA GAAAGGCAGG
481 CCTTGATTTT CCAGCTGAAT TCCCTTGCTG GAAAGCCATT TTTTCTCAAA GACCATTTGT
541 CGCGATTTAG CCTCTGCAGC ATGACAAGGA TGGTTTTGAG CAACAAGTAC TTTGGTGAAT
601 CAACAGTTAG AGTAGAAGAT TTGCAGTACC TGGTAGATCA ATGGTTCTTA CTTAATGGTG
661 CTTTCAACAT TGGAGATTGG ATTCCATGGC TCAGCTTCTT GGACCTACAA GGCTATGTGA
721 AACAAATGAA GGCTTTGAAA AGAACTTTTG ATAAGTTCCA CAACATTGTG CTAGATGATC
781 GCAGGGCTAA GAAGAATGCA GAGAAGAACT TTGTCCCAAA AGACATGGTT GATGCTTTGT
841 TGAAGATGGC TGAAGATCCT AATCTGGAAG TCAAACCTAC TAATGACTGT GTCAAAGGGT
901 TAATGCAGGA TTTACTAACT GGAGGAACAG ATAGCTTAAC AGCAGCAGTG CAATGGGCAT
961 TTCAAGAACT TCTTAGACGG CCAAGGGTTA TTGAGAAGGC AACCAGAGAG CTTGACCGGA
1021 TTGTCGGGAA AGAGAGATGG GTAGAAGAGA AAGATTGCTC GCAGCTATCT TACGTTGAAG
1081 CAATCCTCAA GGAAACACTA AGGTTACATC CTCTAGGAAC TATGCTAGCA CCGCATTGTG
1141 CTATAGAAGA TTGTAACGTG GCTGGTTATG ACATACAGAA AGGAACGACC GTTCTGGTGA
1201 ATGTTTGGAC CATTGGAAGG GACCCAAAAT ACTGGGATAG AGCACAGAG TTTCTCCCCG
1261 AGAGATTCTT AGAGAACGAC ATTGATATGG ACGGACATAA CTTTGCTTTC TTGCCATTTG
1321 GCTCGGGGCG AAGGAGGTGC CCTGGCTATA GCCTTGGACT TAAGGTTATC CGAGTAACAT
1381 TAGCCAACAT GTTGCATGGA TTCAACTGGA AATTACCTGA AGGTATGAAG CCAGAAGATA
1441 TAAGTGTGGA AGAACATTAT GGGCTCACTA CACATCCTAA GTTTCCTGTT CCTGTGATCT
1501 TGGAATCTAG ACTTTCTTCA GATCTCTATT CCCCATCAC TTAATCCTAA GTGCTTCCTA
1561 TTATAGCATC ATATCAATAT CCCTC

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SEQ. ID. NO. 238

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1 MENSWVFLAL AGLSALAFLC KIITCRRPVN RKIPPGPKPW PIIGNLNLG PIPHQSFDLL
61 SKKYGELMLL KFGSRPVLVA SSAEMAKQFL KVHDANFASR PMLAGGKYTS YNYCDMTWAP
121 YGPYWRQARR IYLNQIFTPK RLDSFEYIRV EERQALISQL NSLAGKPFFL KDHLRSFSLC
181 SMTRMVLSEN YFGESTVRVE DLQYLVQWF LLNGAFNIGD WIPWLSFLDL QGYVKQMKAL
241 KRTFDKFHNI VLDDRRAKKN AEKNFVPKDM VDVLLKMAED PNLEVKLND CVKGLMQDLL
301 TGGTDSLTA VQWAFQELLR RPRVIEKATE ELDRIVGKER WVEEKDCSQL SYVEAILKET
361 LRLHPLGTML APHCAIEDCN VAGYDIQKGT TVLVNVWTIG RDPKYWDRAQ EFLPERFLEN
421 DIDMDGHNFA FLFFGSGRRR CPGYSLGLKV IRVTLANMLH GFNWKLEPEM KPEDISVEEH
481 YGLTTHPKFP VPVILESRLS SDLYSPIT

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FIG. 120

NAME D224-BD11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 239

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1 CTCATTATCC ATCACCTAAA ATGGAGAATT CTTGGGTTTT TCTAGCCTTG GCAGGGCTAT
61 CTGCATTAGC TTTTCTCTGT AAAATAATCA CCTGTCGAAG ACCGGTTAAC CGGAAAATAC
121 CACCAGGTCC AAAACCATGG CCCATCATTG GCAATTTGAA CCTACTTGGT CCTATACCAC
181 ATCAATCTTT TGACTTGCTT TCCAAAAAAT ATGGAGAGTT GATGCTGCTG AAATTTGGCT
241 CCAGGCCAGT TCTTGTTGCT TCATCTGCTG AAATGGCAAA ACAGTTTTTA AAAGTACATG
301 ATGCTAATTT CGCCTCCCCT CCTATGCTAG CTGGTGGAAA GTATACAAGC TATAACTATT
361 GTGCATGAC ATGGGCACCC TATGGTCCCT ATTGGCGCCA AGCACGACGA CGAATTTACC
421 TTAACCAGAT ATTTACTCCG AAAAGGCTAG ACTCGTTCGA GTACATTCGT GTTGAAGAAA
481 GGCAGGCCTT GATTTCCCAG CTGAATTTCC TTGCTGGAAA GCCATTTTTT CTCAAAGACC
541 ATTTGTCGCG ATTTAGCCTC TGCAGCATGA CAAGGATGGT TTTGAGCAAC AAGTATTTTG
601 GTGAATCAAC AGTTAGAGTA GAAGATTTGC AGTACCTGGT AGATCAATGG TTCTTACTTA
661 ATGGTGCTTT CAACATTGGA GATTGGATTC CATGGCTCAG CTTCTTGGAC CTACAAGGCT
721 ATGTGAAACA AATGAAGGCT TTGAAAAGAA CTTTTGATAA GTTCCACAAC ATTGTGCTAG
781 ATGATCACAG GGCTAAGAAG AATGCAGAGA AGAACTTTGT CCCAAAAGAC ATGGTTGATG
841 TCTTGTTGAA GATGGCTGAA GATCCTAATC TGGAAGTCAA ACTCACTAAT GACTGTGTCA
901 AAGGGTTAAT GCAGGATTTA CTAAGTGGAG GAACAGATAG CTTAACAGCA GCAGTGCAAT
961 GGGCATTTC AAGAACTTCT AGACAGCCAA GGGTTATTGA GAAGGCAACC GAAGAGCTTG
1021 ACCGGATTGT CGGGAAAGAG AGATGGGTAG AAGAGAAAGA TTGCTCGCAG CTATCTTACG
1081 TTGAAGCAAT CCTCAAGGAA AACTAAGGT TACATCCTCT AGGAACTATG CTAGCACCGC
1141 ATTGTGCTAT AGAAGATTGT AACGTGGCTG GTTATGACAT ACAGAAAGGA ACGACCGTTC
1201 TGGTGAATGT TTGGACCATT GGAAGGGACC CAAAATACTG GGATAGAGCA CAAGAGTTTC
1261 TCCCCGAGAG ATTCTTAGAG AACGACATTG ATATGGACGG ACATAACTTT GCTTTCTTGC
1321 CATTTGGCTC GGGGCGAAGG AGGTGCCCTG GCTATAGCCT TGGACTTAAG GTTATCCGAG
1381 TAACATTAGC CAACATGTTG CATGGATTCA ACTGGAAATT ACCTGAAGGT ATGAAGCCAG
1441 AAGATATAAG TGTGGAAGAA CATTATGGGC TCACTACACA TCCTAAGTTT CCTGTTCCCTG
1501 TGATCTTGGA ATCTAGACTT TCTTCAGATC TCTATTCCTC CATCACTTAA TCCTAAGTGC
1561 TTCCTATTAT AGCATCATAT CAATATCCCT C

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SEQ. ID. NO. 240

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1 MENSWFLLAL AGLSALAFLC KIITCRRPVN RKIPPGPKPW PIIGNLNLG PIPHQSFDLL
61 SKKYGELMLL KFGSRPVLVA SSAEMAKQFL KVHDANFASR PMLAGGKYTS YNYCDMTWAP
121 YGPYWRQARR RIYLNQIFTP KRLDSFEYIR VEERQALISQ LNSLAGKPF LKDHLSRFSL
181 CSMTRMVLN KYFGESTVRV EDLQYLVDQW FLLNGAFNIG DWIPWLSFLD LQGYVKQMK
241 LKRTFDKFHN IVLDDHRAK NAEKNFVPKD MVDVLLKMAE DPNLEVKLTN DCVKGLMQDL
301 LTGGTDSLTA AVQWAFQELL RQPRVIEKAT EELDRIVGKE RWVEEKDCSQ LSYVEAILKE
361 TLRHLPLGTM LAPHCAIEDC NVAGYDIQKG TTVLVNVWTI GRDPKYWDRA QEFLPERFLE
421 NDIDMDGHNF AFLPFGSGRR RCPGYSGLK VIRVTLANML HGFNWKLP EG MKPEDISVEE
481 HYGLTTHPKF PVPVILESRL SSDLYSPIT

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FIG. 121

NAME D228-AD7
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 241

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1  TGATAATGCT CTTTCTACTC TTTGTAGCCC TTCCTTTCAT TCTTATTTTT CTTCTTCCTA
61 AATTCAAAAA TGGTGGAAAT AACAGATTGC CACCAGGTCC TATAGGTTTA CCATTCATTG
121 GAAATTTGCA TCAATACGAT AGTATAACTC CTCATATCTA TTTTGGGAAA CTTTCAAAAA
181 AATATGGCAA AATCTTCTCA TTAAAACTTG CTTCTACTAA TGTGGTAGTA GTTTCTTCAG
241 CAAAATTAGC AAAAGAAGTA TTGAAAAAAC AAGATTTAAT ATTTTGTAGT AGACCATCTA
301 TTCTTGGCCA AAAAAACTG TCTTATTATG GTCGTGATAT TGCTTTTAAT GATTATTGGA
361 GAGCAATGAG AAAAATTGTG GTTCTTCATC TTTTGTAGTT AAAAAAAGTT CAATTATTTA
421 GTCCAATTG TGAAGATGAA GTTTTGTAGT TGATTAAGAA AATATCAAAA CAAGCTTCTA
481 CTTCACAAAAT TATTAATTTG AGTAATTTAA TGATTCATT AACAAGTACA ATTATTTGTA
541 GAGTTGCTTT TGGTGTTAGG ATTGAAGAAG AAGCACATGC AAGGAAGAGA TTTGATTTTC
601 TTTTGGCCGA GGCACAAGAA ATGATGGCTA GTTCTTTGT ATCTGATTTT TTTCCCTTTT
661 TAAGTTGGAT TGATAAATTA AGTGGATTGA CATATAGACT TGAGAGGAAT TTCAAGGATT
721 TGGATAATTT TTATGAAGAA CTCATTGAGC AACATCAAAA TCCTAATAAG CCAAATATA
781 TGGAAGGAGA TATTGTTGAT CTTTGTCTAC AATTGAAGAA AGAGAAATTA ACACCACTTG
841 ATCTCACTAT GGAAGATATA AAAGGAATTC TCATGAATGT GTTAGTTGCA GGATCAGACA
901 CTAGTGCAGC TGCTACTGTT TGGGCAATGA CAGCCTTGAT AAAGAATCCT AAAGCCATGG
961 AAAAAGTTCA ATTAGAAATC AGAAAATCAG TTGGGAAGAA AGGCATTGTA AATGAAGAAG
1021 ATGTCCAAAA CATCCCTTAT TTTAAAGCAG TGATAAAGGA AATATTTAGA TTGTATCCAC
1081 CAGCTCCACT TTTAGTTCCA AGAGAATCAA TGGAAAAAAC CATATTAGAA GGTATGAAA
1141 TTCGGCCAAG AACCATAGTT CATGTTAACG CTTGGGCTAT AGCAAGGGAT CCTGAAATAT
1201 GGGAAAATCC AGATGAATTT ATACCTGAGA GATTTTGTAA TAGCAGTATC GATTACAAGG
1261 GTCAAGATTT TGAGTTACTT CCATTTGGTG CAGGCAGAAG AGGTTGCCCA GGTATTGCAC
1321 TTGGGGTTGC ATCCATGGAA CTTGCTTTGT CAAATCTTCT TTATGCATTT GATTGGGAGT
1381 TGCCTTATGG AGTAAAAAAA GAAGACATCG ACACAAACGT TAGGCCTGGA ATTGCCATGC
1441 ACAAGAAAAA CGAACTTTGC CTTGTCCCAA AAAATTATTT ATAAATTATA TTGGGACGTG
1501 GATCTCATGC TAGTTCTGTG CGGTCAGCTA AGCTTATTAT TTTTGGCTCA AATTATGTAT
1561 ACATAATTAG TACATGTTTA AAATGTATAA ATATAGTAGA ACCATTCTCA TGGTT

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SEQ. ID. NO. 242

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1  MLFLLFVALP FILIFLLPKF KNNGNNRLPP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSLKLAS TNVVVVSSAK LAKEVLKKQD LIFCSRPSIL GQQLSYYGR DIAFNWYRE
121 MRKICVLHLF SLKKVQLFSP IREDEVFMI KKISKQASTS QIINLSNLM SLTSTIICRV
181 AFGVRIEEEA HARKRFDFLL AEAQEMMASF FVSDFFPFLS WIDKLSGLTY RLERNFKDLD
241 NFYEELIEQH QNPKNPKYME GDIVDLLLQL KKEKLTPLDL TMEDIKGILM NVLVAGSDTS
301 AAATVWAMTA LIKNPKAMEK VQLEIRKSVG KKGIVNEEDV QNIPYFKAVI KEIFRLYPPA
361 PLLVPRESME KTILEGYEIR PRTIVHVNAW AIARDPEIWE NPDEFIPERF LNSSIDYKQG
421 DFELLFPFAG RRGCPGIALG VASMELALSN LLYAFDWELP YGVKKEDIDT NVRPGIAMHK
481 KNELCLVPKN YL

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FIG. 122

NAME D228-AH8
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 243

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1 TGATAATGCT CTTTCTACTC TTTGTAGCCC TTCCTTTCAT TCTTATTTTT CTTCTTCCTA
61 AATTCAAAAA TGGTGGAAAT AACAGATTGC CACCAGGTCC TATAGGTTTA CCATTCATTG
121 GAAATTTGCA TCAATATGAT AGTATAACTC CTCATATCTA TTTTGGGAAA CTTTCCAAAA
181 AATATGGCAA AATCTTCTCA TTAAAACCTG CTTCTACTAA TGTGGTAGTA GTTCTTCAG
241 CAAAATTAGC AAAAGAAGTA TTGAAAAAAC AAGATTTAAT ATTTTGTAGT AGACCATCTA
301 TTCTTGGCCA ACAAAAAC TG TCTTATTATG GTCGTGATAT TGCTTTTGCA CCTTATAATG
361 ATTATTGGAG AGAAATGAGA AAAATTTGTG TTCTTCATCT TTTTAGTTTA AAAAAAGTTC
421 AATTATTTAG TCCAATTCGT GAAGATGAAG TTTTLAGAAT GATTAAGAAA ATATCAAAAC
481 AAGCTTCTAC TTCACAAATT ATTAATTTGA GTAATTTAAT GATTTCATT AACAAGTACAA
541 TTATTTGTAG AGTTGCTTTT GGTGTTAGGT TTGAAGAAGA AGCACATGCA AGGAAGAGAT
601 TTGATTTTCT TTTGGCCGAG GCACAAGAAA TGATGGCTAG TTTCTTTGTA TCTGATTTTT
661 TTCCCTTTTT AAGTTGGATT GATAAATTAA GTGGATTGAC ATATAGACTT GAGAGGAATT
721 TCAAGGATTT GGATAATTTT TATGAAGAAC TCATTGAGCA ACATCAAAAT CCTAATAAGC
781 CAAAATATAT GGAAGGAGAT ATTGTTGATC TTTTGCTACA ATTGAAGAAA GAGAAATTAA
841 CACCACTTGA TCTCACTATG GAAGATATAA AAGGAATTCT CATGAATGTG TTAGTTGCAG
901 GATCAGACAC TAGTGCAGCT GCTACTGTTT GGGCAATGAC AGCCTTGATA AAGAATCCTA
961 AAGCCATGGA AAAAGTTCAA TTAGAAATCA GAAAATCAGT TGGGAAGAAA GGCATTGTAA
1021 ATGAAGAAGA TGTCAAAAAC ATCCCTTATT TTAAAGCAGT GATAAAGGAA ATATTTAGAT
1081 TGTATCCACC AGCTCCACTT TTAGTTCCAA GAGAATCAAT GGAAAAAACC ATATTAGAAG
1141 GTTATGAAAT TCGGCCAAGA ACCATAGTTC ATGTTAACGC TTGGGCTATA GCAAGGGATC
1201 CTGAAATATG GGAAAAATCCA GATGAATTTA TACCTGAGAG ATTTTGAAT AGCAGTATCG
1261 ATTACAAGGG TCAAGATTTT GAGTTACTTC CATTTGGTGC AGGCAGAAGA GGTGCCCAG
1321 GTATTGCACT TGGGGTTGCA TCCATGGAAC TTGCTTTGTC AAATCTTCTT TATGCATTTG
1381 ATTGGGAGTT GCCTTATGGA GTGAAAAAAG AAGACATCGA CACAAACGTT AGGCTTGGA
1441 TTGCCATGCA CAAGAAAAAC GAACTTTGCC TTGTCCCAA AAATTATTTA TAAATTATAT
1501 TGGGACGTGG ATCTCATGCT AGTTCTGTGC GGTGAGCTAA GCTTATTATT TTTGGCTCAA
1561 ATTATGTATA CATAATTAGT ACATGTTTAA AATGTATAAA TATAGTAGAA CCATTCTCAT
1621 GGT

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SEQ. ID. NO. 244

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1 MLFLLFVALP FILIFLLPKF KNGGNNRLPP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSLKLAS TNVVVVSSAK LAKEVLKKQD LIFCSRPSIL GQKLSYYGR DIAFAPYNDY
121 WREMRKICVL HLFSLKKVQL FSPIREDEVF RMIKKISKQA STSQIINLSN LMISLTSTII
181 CRVAFGVRFEE EEAHARKRFD FLLAEAQEMM ASFFVSDFFP FLSWIDKLSG LTYRLERNFK
241 DLDNFYEELI EQHQNPKNPK YMEGDIVDLL LQLKKEKLT LDLTMEDIKG ILMNVLVAGS
301 DTSAAATVWA MTALIKNPKA MEKVQLEIRK SVGKKGIVNE EDVQNIPIYFK AVIKEIFRLY
361 PPAPLLVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPE IWENPDEFIP ERFLNSSIDY
421 KGQDFELLPF GAGRRGCPGI ALGVASMELA LSNLLYAFDW ELPYGVKKED IDTNVRPGIA
481 MHKKNELCLV PKNYL

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FIG. 123

NAME D235-AB1
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 245

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1 AAAATTCATA ATGGTTTTTC CCATAGAAGC CTTTGTAGGA CTAGTAACCT TCACATTTCT
61 CTTATACTTC CTATGGACAA AAAAATCTCA AAAACTTCCA AAACCCCTTAC TACCGAAAAT
121 CCCC GGAGGA TGGCCGGTAA TCGGCCATCT TTTTCACTTC AATAACGACG GCGACGACCG
181 TCCATTAGCT CGAAAACCTCG GAGACTTAGC TGATAAAATAC GGCCCCGTTT TCACTTTTCG
241 GCTAGGTCTT CCCCTTGTGC TAGTTGTAAG CAGTTACGAA GCTATAAAAG ATTGCTTCTC
301 TACAAATGAC GCCATTTTCT CCAATCGTCC AGCTTTTCTT TACGGCGAAT ACCTTGGCTA
361 CAATAATACA ATGCTTTTTTC TAGCAAATTA CGGACCTTAC TGGCGAAAAA ATCGTAAATT
421 AGTCATTCAG GAAGTTCTCT CTGCTAGTCG TCTCGAAAAA TTCAAAACAAG TGAGATTAC
481 CAGAATTCAG ACGAGCATTA AGAATTTATA CACTCGAATT AATGGAAATT CGAGTACGAT
541 AAATCTAACT GATTGGT TAGAATTGGA TTTTGGTCTG ATCGTGAAAA TGATCGCTGG
601 GAAAAATTAT GAATCCGGTA AAGGAGATGA ACAAGTGGAA AGATTTAAGA ATGCGTTTAA
661 GGATTTTATG GTTTTATCAA TGGAAATTTGT ATTATGGGAT GCATTTCCAA TTCCATTATT
721 TAAATGGGTG GATTTTCAAG GTCATATTAA GGCAATGAAA AGGACATTTA AGGATATAGA
781 TTCTGTTTTT CAGAACTGGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TGGAGGTTGG
841 TGCAGAAGGG AATGAACAAG ATTTTCATTGA TGTGGTGCTT TCAAAATTGA GTAAAGAATA
901 TCTTGATGAA GGTACTCTC GTGATACTGT CATTAAGCA ACAGTTTTTA GTTTGGTCTT
961 GGATGCAGCA GACACAGTTG CTCTTCACAT AAATTGGGGA ATGACATTAT TGATAAACAA
1021 TCAAAATGCC TTGATGAAAG CACAAGAAGA GATAGACACA AAAGTTGGTA AGTATAGATG
1081 GGTAGAAGAG AGTGATATTA AGGATTTAGT ATACCTCCAA GCTATTGTTA AAAAGGTGTT
1141 ACGATTATAT CCACCAGGAC CTTTGTAGT ACCACATGAA TATGTAAAGG ATTGTGTTGT
1201 TAGTGGATAT CACATTCCCTA AAGGGACTAG ATTATTCGCA AACGTCATGA AACTGCAGCG
1261 CGATCCTAAA CTCTTGTCAA ATCCTGATAA GTTCGATCCA GAGAGATTCA TCGCTGGTGA
1321 TATCGACTTC CGTGGTCACC ACTATGAGTT TATCCCATTG GTTCTGGAA GACGATCTTG
1381 TCCGGGGATG ACTTATGCAT TGCAAGTGGA ACACCTAACA ATGGCACATT TAATCCAGGG
1441 TTTCAATTAC AAAACTCCAA ATGACGAGGC CTTGGATATG AAGGAAGGTG CAGGCATAAC
1501 AATACGTAAG GTAAATCCGG TGGAAATTGAT AATAACGCCT CGCTTGGCAC CTGAGCTTTA
1561 CTA AACCTA AGATCTTCA TCTTGGTTGA TCATTGTTTA ATACTCCTAG ATAGATGGGT
1621 ATTCATC

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SEQ. ID. NO. 246

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1 MVFPIEAFVG LVTFTFLLYF LWTKKSQKLP KPLLKIPGG WPVIGHLFHF NNDGDDRPLA
61 RKLGLADKY GPVFTFRLGL PLVLVSSYE AIKDCFSTND AIFS NRPAFL YGEYLGYNNT
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKQVRFTRIQ TSIKNLYTRI NGNSSTINLT
181 DWLEELDFGL IVKMIAGKNY ESGKGDEQVE RFKNAFKDFM VLSMEFVLWD AFPIPLFKWV
241 DFQGHKAMK RTFKDIDSVF QNWLEEHINK REKMEVGAEG NEQDFIDVVL SKLSKEYLDE
301 GYSRDTVIKA TVFSLVLDAA DTVALHINWG MTLINNQNA LMKAQEEIDT KVGKYRWVEE
361 SDIKDLVYLQ AIVKKVLRLY PPGPLLVPHE YVKDCVVSGY HIPKGTRLFA NVMKLQRDPK
421 LLSNPDKFDP ERFIAGDIDF RGHHYEFIPF GSGRRSCPGM TYALQVEHLT MAHLIQGFNY
481 KTPNDEALDM KEGAGITIRK VNPVELIITP RLAPELY

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FIG. 124

NAME D243-AA2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 247

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1 CAAAAAATCA TTTCTCTCGT CTAAAATGGA TCTTCTCTTA CTAGAGAAGA CCTTAATTGG
61 TCTTTTCTTT GCCATTTTAA TCGCTTTAAT TGTCTCTAAA CTTCGTTCAA AGCGTTTTAA
121 GCTTCCTCCA GGACCAATTC CAGTACCAGT TTTTGGAAT TGGCTTCAAG TTGGTGATGA
181 TTAAACCAC AGAAATCTTA CTGATTATGC CAAAAAATT GGCGATCTTT TCTTGTTAAG
241 AATGGGTCAA CGTAACTTAG TTGTTGTGTC ATCTCCTGAA TTAGCTAAAG AAGTTTTACA
301 CACACAAGGT GTTGAATTTG GTTCAAGAAC AAGAAATGTT GTGTTTGATA TTTTACTGG
361 AAAAGGTCAA GATATGGTTT TTAAGTATA TGGTGAACAT TGGAGAAAAA TGAGGAGAAT
421 TATGACTGTA CCATTTTTTA CTAATAAAGT TGTGCAACAG TATAGAGGGG GGTGGGAGTT
481 TGAGGTGGCA AGTGTAAATT AGGATGTGAA AAAAAATCCT GAATCTGCTA CTAATGGGAT
541 CGTATTAAGG AGGAGATTAC AATTAATGAT GTATAATAAT ATGTTTAGGA TTATGTTTGA
601 TAGGAGATTT GAGAGTGAAG ATGATCCTTT GTTTGTTAAG CTTAAGGCTT TGAATGGTGA
661 AAGGAGTAGA TTGGCTCAA GTTTTGAGTA TAATTATGGT GATTTTATTC CAATTTTGAG
721 GCCTCTTTTG AGAGGTTATT TGAAGATCTG TAAAGAAGTT AAGGAGAAGA GGCTGCAGCT
781 TTTCAAAGAT TACTTTGTTG ATGAAAGAAA GAAGCTTTCA AATACCAAGA GCTCGGACAG
841 CAATGCCCTA AAATGTGCGA TTGATCACAT TCTTGAGGCT CAACAGAAGG GAGAGATCAA
901 TGAGGACAAC GTTCTTTACA TTGTTGAAAA CATCAATGTT GCTGCAATTG AAACAACATT
961 ATGGTCAATT GAGTGGGGTA TCGCCGAGCT AGTCAACCAC CCTCACATCC AAAAGAAACT
1021 GCGCGACGAG ATTGACACAG TTCTTGGACC AGGAGTGCAA GTGACTGAAC CAGACACCCA
1081 CAAGCTTCCA TACCTTCAGG CTGTGATCAA GGAGGCACTT CGTCTCCGTA TGGCAATTCC
1141 TCTATTAGTC CCACACATGA ACCTTCACGA CGCAAAGCTT GGCGGGCTTG ATATTCCAGC
1201 AGAGAGCAAA ATCTTGGTTA ACGCTTGGTG GTTAGCTAAC AACCCTGGCTC ATTGGAAGAA
1261 ACCCGAAGAG TTCAGACCCG AGAGGTTCTT TGAAGAGGAG AAGCATGTTG AGGCCAATGG
1321 CAATGACTTC AGATATCTTC CGTTTGGCGT TGGTAGGAGG AGCTGCCCTG GAATTATACT
1381 TGCATTGCCA ATTCTTGGCA TCACTTTGGG ACGTTTGGTT CAGAACTTTG AGCTGTTGCC
1441 TCCTCCAGGC CAGTCGAAGC TCGACACCAC AGAGAAAGGT GGACAGTTCA GTCTCCACAT
1501 TTTGAAGCAT TCCACCATTG TGTTGAAACC AAGGTCTTTC TGAACTTTGT GATCTTATTA
1561 ATTAAGGGGT TCTGAAGAAA TTTGATAGTG TTGG

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SEQ. ID. NO. 248

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1 MDLLLLLEKTL IGLFFAILIA LIVSKLRSKR FKLPPGPIPV PVFGNWLQVG DDLNHRNLTD
61 YAKKFGDLFL LRMGQRNLVV VSSPELAKEV LHTQGVFEGS RTRNVVFDIF TGKGQDMVFT
121 VYGEHWRKMR RIMTVPFFTN KVVQQYRGGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNNMFRIM FDRRFESDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPLLRGYLK
241 ICEVKEKRL QLFKDYFVDE RKKLSNTKSS DSNALKCAID HILEAQQKGE INEDNVLYIV
301 ENINVAAIET TLWSIEWGIA ELVNHPHIQK KLRDEIDTVL GPGVQVTEPD THKLPLYLQAV
361 IKEALRLRMA IPLLPHMNL HDAKLGGLDI PAESKILVNA WWLANNPAHW KKPEEFRPER
421 FFEKEKHVEA NGNDFRYLPF GVGRRSCPGI ILALPILGIT LGRLVQNFEL LPPPGQSKLD
481 TTEKGGQFSL HILKHSTIVL KPRSF

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FIG. 125

NAME D244-AD4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 249

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1 AACATTTTGC AATATAGTTT TCCTAGTCAG TTCTAGCCTC CTTTTCCTTA GAAATAATGG
61 ATTATCATAT TTCTTTCCAT TTTCAAGCTC TTTTAGGGCT TTTAGCCTTT GTGTTCTTGT
121 CTATTATCTT ATGGAGAAGA ACACTCACCT CAAGAAAATT AGCCCTGAA ATCCCAGGGG
181 CATGGCCTAT TATAGGCCAT CTTTCGTCAGC TGAGTGGTAC TGATAAGAAT ATCCCATTTC
241 CCCGAATATT GGGCGCTTTG GCAGATAAAT ATGGACCTGT CTTCACTG AGAATAGGGA
301 TGTACCCCTA TTTGATTGTC AACAATTGGG AAGCAGCTAA GGATTGTCTC ACAACGCATG
361 ATAAGGACTT CGCTGCCCCG CCAACTTCTA TGGCTGGTGA AAGCATCGGG TACAAGTATG
421 CGAGGTTTAC TTATGCTAAT TTTGGTCCTT ATTATAACCA AGTGCGCAA CTAGCCCTAC
481 AACATGTACC CTCGAGTACT AAACGAGAGA AAATGAAACA CATACGTGT TCTGAATTGG
541 AAACAGTACC CAAAGAATTA TATTCTTTGA CGCTGGGCAA AAACAACATG CAAAAAGTGA
601 ATATAAGTAA ATGGTTTGAA CAATTGACTT TAAACATAAT CGTGAAGACA ATTTGTGGCA
661 AGAGATATAG CAACATAGAG GAGGATGAAG AGGCACAACG TTTCAGAAAG GCATTTAAGG
721 GCATCATGTT TGTTGTAGGG CAAATTGTTT TATATGACGC AATTCCATTC CCATTGTTC
781 AATACTTTGA TTTCCAAGGT CATATACAAT TGATGAACAA AATTTATAAA GACTTAGATT
841 CTATTCTTCA AGGATGGTTG GATGATCATA TGATGAACAA GGATGTAAAC AATAAGGATC
901 AAGATGCCAT AGATGCCATG CTTAAGGTAA CACAACCTAA TGAATTCAAA GCCTATGGTT
961 TTTCTCAGGC CACTGTGATC AAGTCGACAG TCTTGAGTTT GATCTTAGAT GGAAATGACA
1021 CAACCGCTGT TCATTTGATA TGGGTAATGT CCTTATTACT GAACAATCCA CATGTTATGA
1081 AACAAGGCCA AGAAGAGATA GACATGAAAG TGGGTAAAGA GAGGTGGATT GAAGATACTG
1141 ACATAAAAAA TTTAGTGATC CTTCAAGGCTA TCGTTAAAGA GACATTGCGC TTGTATCCAC
1201 CTGTTCTTTT TCTTTTACCA CACGAAGCAG TGCAAGATTG TAAAGTGAAT GGTACCACA
1261 TTCCTAAAGG TACTCGTCTA TATATCAATG CGTGGAAAGT ACATCGCGAT CCTGAAATTT
1321 GGTCAGAGCC CGAAAAGTTT ATGCCCAATA GATTCTTGAC TAGCAAAGCA AATATAGATG
1381 CTCGCGGTCA AAATTTTGAA TTTATACCGT TTGGTTCTGG GAGACGGTCA TGTCCAGGGA
1441 TAGGTTTTGC GACTTTAGTG ACACATCTGA CTTTTGGTCG CTTGCTTCAA GGTTTTGATT
1501 TTAGTAAGCC ATCAAACACG CCAATTGACA TGACAGAAGG CGTAGGCGTT ACTTTGCCCTA
1561 AGGTTAATCA AGTTGAAGTT CTAATTACCC CTCGTTTACC TTCTAAGCTT TATTTATTTT
1621 GAAAGTGCAA ATCATCAATC ATGGCTTGAG TAATTAGTTA TACTTTAATA TGTTTTCTC

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SEQ. ID. NO. 250

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1 MDYHISFHFQ ALLGLLAFVF LSIILWRRTL TSRKLAPEIP GAWPIIGHLR QLSGTDKNIP
61 FPRILGALAD KYGPVFTLRI GMYPYLIVNN WEAAKDCLTT HDKDFEARPT SMAGESIGYK
121 YARFTYANFG PYYNQVRKLA LQHVPSSTKL EKMKHIVSE LETSIKELYS LTLGKNMQK
181 VNISKWFEQL TLNIIVKTIC GKRYSNIEED EEAQRFRKAF KGIMFVVGQI VLYDAIPFPL
241 FKYFDFQGHI QLMNKIYKDL DSILQGWLDD HMMNKDVNNK DQDAIDAMLK VTQLNEFKAY
301 GFSQATVIKS TVLSLILDGN DTTAVHLI WV MSLLLNNPHV MKQGQEEIDM KVGKERWIED
361 TDIKNLVYLQ AIVKETLRLY PPVPFLLPHE AVQDCKVTGY HIPKGTRLYI NAWKVHRDPE
421 IWSEPEKFMP NRFLTskANI DARGQNFEFI PFGSGRRSCP GIGFATLVTH LTFGRLLQGF
481 DFSKPSNTPI DMTEGVGVTL PKVNQVEVLI TPRLPskLYL F

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FIG. 126

NAME D247-AH1
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 251

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1 TGATAATGCT CTTTCTACTC TTTGTAGCCC TTCCTTTCAT TCTTATTTTT CTTCTTCCTA
61 AATTCAAAAA TGGTGGAAAT AACAGATTGC CACCAGGTCC TATAGGTTTA CCATTCATTG
121 GAAATTTGCA TCAATATGAT AGTATAACTC CTCATATCTA TTTTGGGAAA CTTTCCAAAA
181 AATATGGCAA AATCTTCTCA TTAAAACTTG CTTCTACTAA TGTGGTAGTA GTTCTTTCAG
241 CAAAATTAGC AAAAGAAGTA TTGAAAAAAC AAGATTTAAT ATTTTGTAGT AGACCATCTA
301 TTCTTGGCCA ACAAAAACCTG TCTTATTATG GTCGTGATAT TGCTTTTGCA CCTTATAATG
361 ATTATTGGAG AGAAATGAGA AAAATTTGTG TTCTTCATCT TTTTAGTTTA AAAAAAGTTC
421 AATTATTTAG TCCAATTCGT GAAGATGAAG TTTTLAGAAT GATTAAGAAA ATATCAAAAC
481 AAGCTTCTAC TTCACAAATT ATTAATTTGA GTAATTTAAT GATTTCATTA ACAAGTACAA
541 TTATTTGTAG AGTTGCTTTT GGTGTTAGGT TTGAAGAAGA AGCACATGCA AGGAAGAGAT
601 TTGATTTTCT TTTGGCCGAG GCACAAGAAA TGATGGCTAG TTTCTTTGTA TCTGATTTTT
661 TTCCCTTTTT AAGTTGGATT GATAAATTAA GTGGATTGAC ATATAGACTT GAGAGGAATT
721 TCAAGGATTT GGATAATTTT TATGAAGAAC TCATTGAGCA ACATCAAAAT CCTAATAAGC
781 CAAAATATAT GGAAGGAGAT ATTGTTGATC TTTTGCTACA ATTGAAGAAA GAGAAATTAA
841 CACCACTTGA TCTCACTATG GAAGATATAA AAGGAATTCT CATGAATGTG TTAGTTGCAG
901 GATCAGACAC TAGTGCAGCT GCTACTGTTT GGGCAATGAC AGCCTTGATA AAGAATCCTA
961 AAGCCATGGA AAAAGTTCAA TTAGAAATCA GAAAATCAGT TGGGAAGAAA GGCATTGTAA
1021 ATGAAGAAGA TGTCCAAAAC ATCCCTTATT TTAAAGCAGT GATAAAGGAA ATATTTAGAT
1081 TGTATCCACC AGCTCCACTT TTAGTTCCAA GAGAATCAAT GGAAAAAACC ATATTAGAAG
1141 GTTATGAAAT TCGGCCAAGA ACCATAGTTC ATGTTAACGC TTGGGCTATA GCAAGGGATC
1201 CTGAAATATG GGAAAATCCA GATGAATTTA TACCTGAGAG ATTTTGAAT AGCAGTACCG
1261 ATTACAAGGG TCAAGATTTT GAGTTACTTC CATTGTTGTC AGGCAGAAGA GGTGCCCCAG
1321 GTATTGCACT TGGGGTTGCA TCCATGGAAC TTGCTTTGTC AAATCTTCTT TATGCATTTG
1381 ATTGGGAGTT GCCTTATGGA GTGAAAAAAG AAGACATCGA CACAAACGTT AGGCCTGGAA
1441 TTGCCATGCA CAAGAAAAAC GAACTTTGCC TTGTCCCAA AAATTATTTA TAAATTATAT
1501 TGGGACGTGG ATCTCAATTT AGTTCTGTGA GGTACAGC

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SEQ. ID. NO. 252

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1 MLFLLFVALP FILIFLLPKF KNGGNNRLPP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSLKLAS TNVVVVSSAK LAKEVLKKQD LIFCSRPSIL GQKLSYYGR DIAFAPYNDY
121 WREMRKICVL HLFSLKQVQL FSPIREDEVF RMIKKISKQA STSQIINLSN LMISLTSTII
181 CRVAFGVRFE EEAHARKRFD FLLAEAQEMM ASFFVSDFFP FLSWIDKLSG LTYRLERNFK
241 DLDNFYEELI EQHQNPKNPK YMEGDIVDLL LQLKKEKLTP LDLTMEDIKG ILMNVLVAGS
301 DTSAAATVWA MTALIKNPKA MEKVQLEIRK SVGKKGIVNE EDVQNIPIYFK AVIKEIFRLY
361 PPAPLLVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPE IWENPDEFIP ERFLNSSTDY
421 KGQDFELLPF GAGRRGCPGI ALGVASMELA LSNLLYAFDW ELPYGVKKED IDTNVRPGIA
481 MHKKNELCLV PKNYL

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FIG. 127

NAME D248-AA6
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 253

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1 CCAAAATCAT GGCTCTATCT TTCATATTCA TATCCATAAC CCTAATTTTT CTAGTTCATA
61 AACTCTACCA CCGTCTTAGA TTCAAACACT CACCAGGTCC GCGGCCGTTA CCGGTGGTCG
121 GAAACCTCTA CGACATAAAA CCGGTGAGAT TCCGGTGCTT TGCCGATTGG GCCAAACTT
181 ACGGTCCGAT TTTCTCAGTA TACTTTGGGT CACAGTTAAA TGTTGTGGTA ACAACAGCTG
241 AATTAGCTAA AGAAGTATTG AAAGAAAATG ACCAGAATTT AGCAGATAGA TTTAGGACTA
301 GACCTGCAAA TAATTTGAGC AGAAATGGGA TGGATTTGAT TTGGGCTGAT TATGGGCCTC
361 ATTATGTGAA AGTAAGGAAG CTCTGTAATC TTGAGCTTTT TACTCCTAAA AGACTTGAAG
421 CTCTTAGACC TATTAGAGAA GATGAAGTTA CTGCTATGGT TGAAAACATT TTCAAGGATT
481 GTACTAAGCC TGATAACACA GGTAAGGCT TGTGATAAG AGAGTACTTA GGATCAGTAG
541 CATTCAACAA CATTACAAGG TTAACATTTG GGAAAAGGTT CATGAACTCA AAAGGTGAGA
601 TTGATGAGCA AGGTCAAGAA TTCAAGGGTA TTGTCCTCTAA TGGCATCAAA ATTGGCGGAA
661 AACTTCCCTT GGCAGAGTAT GTTCCATGGC TCCGTTGGTT TTTCACAAATG GAAAACGAGG
721 CACTCGTGAA GCACTCTGCA CGTAGAGACC GGTAAACAAG AATGATCATG GATGAACACA
781 CACTGGCTCG CAAGAAAACCT GGTGATACTA AGCAGCATTT TGTCGATGCA TTGCTTACTC
841 TTCAGAAGCA GTATGATCTT AGTGATGACA CTGTTATTGG CCTCCTCTGG GATATGATTA
901 CAGCAGGAAT GGACACAACA ACCATAACAG TGGAATGGGC AATGGCAGAA CTAGTTAAGA
961 ACCCAAGAGT GCAACTAAAA GCTCAAGAGG AGCTTGACAG GGTAATCGGA ACGGATCGAA
1021 TCATGTCAGA AACCGATTTC TCTAACTTC CTTACCTACA ATGTGTAGCC AAAGAGGCTC
1081 TAAGGTTGCA CCCTCCAACCT CCTCTAATGC TTCCTCATAA GGCCAGTGCC AGTGTCAAAA
1141 TTGGTGGTTA TGACATTCCT AAGGGGTCCA TCGTGCACGT GAACGTTTGG GCTGTCGCTC
1201 GTGACCCAGC CGTGTGGAAG AACCCGTTGG AGTTCAGACC AGAGCGCTTC CTTGAGGAAG
1261 ACGTTGACAT GAAGGGTCAC GACTATCGGT TATTGCCCTT TGGTGCAGGA AGGCGTGTTC
1321 GCCCCGGTGC ACAACTTGCT ATCAACTTGG TCACATCTAT GTTGGGTCAT TTGTTGCATC
1381 ATTTTACATG GGCTCCGGCC CCGGGGGTTA ACCCGGAGGA TATTGACTTG GAGGAGAGCC
1441 CTGGAACAGT AACTTACATG AAAAATCCAA TACAAGCTAT TCCAACCTCA AGATTGCCTG
1501 CACACTTGTA TGGACGTGTG CCAAGTGATA TGTAACACAT TTTGTTCTTT CCCTTTTGG
1561 TTATATGATG AG

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SEQ. ID. NO. 254

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1 MALSIFISITLIFLVHKLY HRLRFKLPPG PRPLPVVGNL YDIKPVRFRFC FADWAKTYGP
61 IFSVYFGSQL NVVVTTAELA KEVLKENDQN LADRFRTRPA NNLSRNGMDL IWADYGPYHV
121 KVRKLCNLEL FTPKRLEALR PIREDEVTAM VENIFKDCTK PDNTGKSLLI REYLGSAFVN
181 NITRLTFGKR FMNSKGEIDE QGQEFKGIVS NGIKIGGKLP LAEYVPWLRW FFTMENEALV
241 KHSARRDRLT RMIMDEHTLA RKKTGDTKQH FVDALLTLQK QYDLSDDTVI GLLWDMITAG
301 MDTTITITVEW AMAELVKNPR VQLKAQEELD RVIGTDRIMS ETDFSKLPYL QCVAKEALRL
361 HPPTPLMLPH KASASVKIGG YDIPKGSIVH VNVWAVARDP AVWKNPLEFR PERFLEEDVD
421 MKGHDYRLLP FGAGRRCVCPG AQLAINLVTS MLGHLLHHFT WAPAPGVNPE DIDLEESPGT
481 VTYMKNPIQA IPTPRLPAHL YGRVPVDM

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FIG. 128

NAME D249-AE8
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 255

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1 AATCACTAAT TTTTCATGTAC TCTCATAGGT CAAAAGTTTC AACCAAAATC ATGGCTCTAT
61 CCTTCATATT CATATCCATA ACCCTAATTT TTCTAGTTCA TAAACTCTAC CACCGTCTTA
121 GATTCAAACCT ACCACCAGGT CCGCGGCCGT TACCGGTGGT CGGAAACCTC TACGACATAG
181 AACCGGTGAG ATTCCGGTGC TTTGCCGATT GGGCCAAAAC TTACGGTCCG ATTTTCTCAG
241 TATACTTTGG GTCACAGTTA AATGTTGTGG TAACAACAGC TGAATTAGCT AAAGAAGTAT
301 TGAAAGAAAA TGACCAGAAT TTAGCAGATA GATTTAGGAC TAGACCTGCA AATAATTTGA
361 GCAGAAATGG GATGGATTTG ATTTGGGCTG ATTATGGGCC TCATTATGTG AAAGTAAGGA
421 AGCTCTGTAA TCTTGAGCTT TTTACTCCTA AAAGACTTGA AGCTCTTAGA CCTATTAGAG
481 AAGATGAAGT TACTGCTATG GTTGAAAACA TTTTCAAGGA TTGTACTAAG CCTGATAACA
541 CAGGTAAAAG CTTGTTGATA AGAGAGTACT TAGGATCAGT AGCATTCAAC AACATTACAA
601 GGTTAACATT TGGGAAAAGG TTCATGAAC TCAAAGGTGA GATTGATGAG CAAGGTCAAG
661 AATTCAAGGG TATTGTCTCT AATGGCATCA AAATTGGCGG AAAACTTCCC TTGGCAGAGT
721 ATGTTCCATG GCTCCGTTGG TTTTTCACAA TGGAAAACGA GGCACCTCGT AAGCACTCTG
781 CACGTAGAGA CCGGTAAACA AGAATGATCA TGGATGAACA CACACTGGCT CGCAAGAAAA
841 CTGGTGATAC TAAGCAGCAT TTTGTCGATG CATTGCTTAC TCTTCAGAAG CAGTATGATC
901 TTAGTGATGA CACTGTTATT GGCCTCCTCT GGGATATGAT TACAGCAGGA ATGGACACAA
961 CAACCATAAC AGTGGAATGG GCAATGGCAG AACTAGTTAA GAACCCAGA GTGCAACTAA
1021 AAGCTCAAGA GGAGCTTGAC AGGGTAATCG GAACGGATCG AATCATGTCA GAAACCGATT
1081 TCTCTAAACT TCCTTACCTA CAATGTGTAG CCAAAGAGGC TCTAAGGTTG CACCTCCAA
1141 CTCCTCTAAT GCTTCCTCAT AGGGCCAGTG CCAGTGTCAA AATTGGTGGT TATGACATTC
1201 CTAAGGGGTC CATCGTGCAC GTGAACGTTT GGGCTGTGCG TCGTGACCCA GCCGTGTGGA
1261 AGAACCCGTT GGAGTTCAGA CCAGAGCGCT TCCTTGAGGA AGACGTTGAC ATGAAGGGTC
1321 ACGACTATCG GTTATTGCCC TTTGGTGAG GAAGGCGTGT TTGCCCCGGT GCACAACCTG
1381 CTATCAACTT GGTACATCT ATGTTGGGTC ATTTGTTGCA TCATTTTACA TGGGCTCCGG
1441 CCCCAGGGGT TAACCCGGAG GATATTGACT TGGAGGAGAG CCCTGGAACA GTAACCTACA
1501 TGAAAAATCC AATACAAGCT ATTCCAAC TCAGATTGCC TGCACACTTG TATGGACGTG
1561 TGCCAGTGGA TATGTAAAAC

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SEQ. ID. NO. 256

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1 MYSHRSKVST KIMALSFIFI SITLIFLVHK LYHRLRFKLP PGPRPLPVVG NLYDIEPVRF
61 RCFADWAKTY GPIFSVYFGS QLNVVVTTAE LAKEVLKEND QNLADRFRTT PANNLSRNGM
121 DLIWADYGPH YVKVRKLCNL ELFTPKRLEA LRPIREDEVT AMVENIFKDC TKPDNTGKSL
181 LIREYLGVA FNNITRLTFG KREMNSKGEI DEQGQEFKGI VSNGIKIGGK LPLAEYVPWL
241 RWFFTMENEA LVKHSARRDR LTRMIMDEHT LARKKTGDTK QHFVDALLTL QKQYDLSDDT
301 VIGLLWDMIT AGMDTTTITV EWAMAEVLVN PRVQLKAQEE LDRVIGTDRI MSETDFSKLP
361 YLQCVAKEAL RLHPPTPLML PHRASASVKI GGYDIPKGI VHVNVWAVAR DPAVWKNPLE
421 FRPERFLEED VDMKGHDYRL LPFGAGRRVC PGAQLAINLV TSMLGHLLHH FTWAPAPGVN
481 PEDIDLEESP GTVTYMKNPI QAIPTPRLPA HLYGRVPVDM

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FIG. 129

NAME D250-AC11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 257

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1 ATAATGCTCT TTCTACTCTT TGTAGCCCTT CCTTTCATTC TTATTTTCT TCTTCCTAAA
61 TTCAAAAATG GTGGAAATAA CAGATTGCCA CCAGGTCCTA TAGGTTTACC ATTCATTGGA
121 AATTTGCATC AATATGATAG TATAACTCCT CATATCTATT TTTGGAAACT TTCCAAAAAA
181 TATGGCAAAA TCTTCTCATT AAAACTTGCT TCTACTAATG TGGTAGTAGT TTCTTCAGCA
241 AAATTAGCAA AAGAAGTATT GAAAAACAA GATTTAATAT TTTGTAGTAG ACCATCTATT
301 CTTGGCCAAC AAAAAGTGTG TTATTATGGT CGTGATATTG CTTTGCACC TTATAATGAT
361 TATTGGAGAG AAATGAGAAA AATTTGTGTT CTTTCATCTTT TTAGTTTAAA AAAAGTTCAA
421 TTATTTAGTC CAATTCGTGA AGATGAAGTT TTTAGAATGA TTAAGAAAAAT ATCAAAACAA
481 GCTTCTACTT CACAAATTAT TAATTTGAGT AATTTAATGA TTTCATTAAC AAGTACAATT
541 ATTTGTAGAG TTGCTTTTGG TGTTAGGTTT GAAGAAGAAG CACATGCAAG GAAGAGATTT
601 GATTTTCTTT TGGCCGAGGC ACAAGAAATG ATGGCTAGTT TCTTTGTATC TGATTTTTTTT
661 CCCTTTTTTAA GTTAGATTGA CAAATTAAGT GGATTGACAT ATAGACTTGA GAGGAATTTT
721 AAGGATTTGG ATAATTTTTA TGAAGAACTC ATTGAGCAAC ATCAAAATCC TAATAAGCCA
781 AAATATATGG AAGGAGATAT TGTTGATCTT TTGCTACAAT TGAAGAAAGA GAAATTAACA
841 CCACTTGATC TCACTATGGA AGATATAAAA GGAATTCTCA TGAATGTGTT AGTTGCAGGA
901 TCAGACACTA GTGCAGCTGC TACTGTTTGG GCAATGACAG CTTGATAAAA GAATCCTAAA
961 GCCATGGAAA AAGTTCAATT AGAAATCAGA AAATCAGTTG GGAAGAAAGG CATTGTAAAT
1021 GAAGAAGATG TCCAAAACAT CCCTTATTTT AAAGCAGTGA TAAAGGAAAT ATTTAGATTG
1081 TATCCACCAG CTCCACTTTT AGTTCCAAGA GAATCAATGG AAAAAACCAT ATTAGAAGGT
1141 TATGAAATTC GGCCAAGAAC CATAGTTCAT GTTAACGCTT GGGCTATAGC AAGGGATCCT
1201 GAAATATGGG AAAATCCAGA TGAATTTATA CCTGAGAGAT TTTTGAATAG CAGTATCGAT
1261 TACAAGGGTC AAGATTTTGA GTTACTTCCA TTTGGTGCAG GCAGAAGAGG TTGCCCAGGT
1321 ATTGCACTTG GGGTTGCATC CATGGAACCT GCTTTGTCAA ATCTTCTTTA TGCATTTGAT
1381 TGGGAGTTGC CTTATGGAGT GAAAAAGAA GACATCGACA CAAACGTTAG GCCTGGAATT
1441 GCCATGCACA AGAAAAACGA ACTTTGCCTT GTCCCAAAA AATTATTTAT AAATTATATT
1501 GGGACGTGGA TCTCATGCTA GTTCTGTGCG GTCAGCTAAG CTTA

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SEQ. ID. NO. 258

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1 MLFLLFVALP FILIFLLPKF KNGGNNRLPP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSLKLAS TNVVVVSSAK LAKEVLKKQD LIFCSRPSIL GQOKLSYYGR DIAFAPYNDY
121 WREMRKICVL HLFSLKKVQL FSPIREDEVF RMIKKISKQA STSQIINLSN LMISLTSTII
181 CRVAFGVRFE EEAHARKRFD FLLAEAQEMM ASFFVSDFFP FLS.IDKLSG LTYRLERNFK
241 DLDNFYEELI EQHQNPKNPK YMEGDIVDLL LQLKKEKLT LDLTMEDIKG ILMNVLVAGS
301 DTSAAATVWA MTALIKNPKA MEKVQLEIRK SVGKKGIVNE EDVQNIPIYFK AVIKEIFRLY
361 PPAPLLVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPE IWENPDEFIP ERFLNSSIDY
421 KGQDFELLPF GAGRRGCPGI ALGVASMELA LSNLLYAFDW ELPYGVKKED IDTNVRPGIA
481 MHKKNELCLV PKKLFINYIG TWISC

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FIG. 130

NAME D259-AB9
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 259

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1 CACATTGAGT CCTCTCCCAA ATCACTGATT CACCACCAAA AGTACCAACA ATTCAATGGA
61 AGGTACAAAC TTGACTACAT ATGCAGCAGT ATTTCTTGAT ACTCTGTTTC TTTTGTTCCT
121 TTCCAAACTT CTTGCCAGA GGAAACTCAA TTTACCTCCA GGCCCAAAAC CATGGCCGAT
181 CATCGGAAAC TTAAACCTTA TTGGCAATCT TCCTCATCGC TCAATCCACG AACTCTCCCT
241 CAAGTACGGA CCCGTTATGC AACTCCAATT CGGGTCTTTC CCCGTTGTAG TTGGATCCTC
301 CGTCGAAATG GCTAAGATTT TCCTCAAATC CATGGATATT AACTTTGTAG GCAGGCCTAA
361 AACGGCTGCC GGAAAATACA CAACGTACAA TTATTCCGAT ATTACATGGT CTCCTTACGG
421 ACCATATTGG CGCCAGGCAC GTAGGATGTG CCTAACGGAA TTATTCAGCA CGAAACGTCT
481 CGATTCATAC GAGTATATTC GGGCTGAGGA GTTGCAATTCT CTTCTCCATA ATTTGAACAA
541 AATATCAGGG AAACCAATTG TGTTGAAAGA TTATTTGACG ACGTTGAGTT TAAATGTTAT
601 TAGCAGGATG GTACTGGGGA AAAGGTATTT GGACGAATCC GAGAAGTCTG TCGTGAATCC
661 TGAGGAATTT AAGAAGATGT TGGACGAATT GTTTTTGCTA AATGGTGTAC TTAATATTGG
721 AGATTCAATT CCATGGATTG ATTTTCATGGA TTTGCAAGGT TATGTTAAGA GGATGAAAGT
781 AGTGAGCAAG AAATTCGACA AGTTTTTAGA GCATGTTATT GATGAGCATA ACATTAGGAG
841 AAATGGAGTG GAGAATTATG TTGCTAAGGA TATGGTGGAT GTTTTGTTGC AGCTTGCTGA
901 TGATCCGAAG TTGGAAGTTA AGCTGGAGAG ACATGGAGTC AAAGCATTCA CTCAGGATAT
961 GCTGGCTGGT GGAACCGAGA GTTCAGCAGT GACAGTGGAG TGGGCAATTT CAGAGCTGCT
1021 AAAGAAGCCG GAGATTTTCA AAAAGGCTAC AGAAGAATTG GATCGAGTAA TTGGGCAGAA
1081 TAGATGGGTA CAAGAAAAGG ACATTCCAAA TCTTCCTTAC ATAGAGGCAA TAGTCAAAGA
1141 GACTATGCGA CTGCACCCCG TGGCACC AAT GTTGGTGCCA CGTGAGTGTC GAGAAGATAT
1201 TAAGGTAGCA GGCTACGACG TTCAGAAAGG AACTAGGGTT CTCGTGAGTG TATGGACTAT
1261 TGGAAGAGAC CCTACATTGT GGGACGAGCC TGAGGTGTTT AAGCCGGAGA GATTCCATGA
1321 AAAGTCCATA GATGTTAAAG GACATGATTA TGAGCTTTTG CCATTTGGAG CGGGGAGAAG
1381 AATGTGCCCG GGTATAGCT TGGGGCTCAA GGTGATTCAA GCTAGCTTAG CTAATCTTCT
1441 ACATGGATTT AACTGGTCAT TGCCTGATAA TATGACTCCT GAGGACCTCA ACATGGATGA
1501 GATTTTTGGG CTCTCTACAC CTAAAAAATT TCCACTTGCT ACTGTGATTG AGCCAAGACT
1561 TTCACCAAAA CTTTACTCTG TTTGATTCAG CAGTTCTATG GTTCCGTC AA GATAG

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SEQ. ID. NO. 260

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1 MEGTNLTYYA AVFLDTLFL LLSKLLRQRK LNLPPGPKPW PIIGNLNLIG NLPHRSIHEL
61 SLKYGPVQML QFGSFPVVVG SSVEMAKIFL KSMDINLVGR PKTAAGKYTT YNYSBITWSP
121 YGPYWRQARR MCLTELFSTK RLDSYHEYRA EELHSLHNL NKISGKPIVL KDYLTTLSLN
181 VISRMVLGKR YLDESENSFV NPEEFKMLD ELFLNGVLN IGDSIPWIDF MDLQGYVKRM
241 KVVSKKFDKF LEHVIDEHNI RRNGVENYVA KDMVDVLLQL ADDPKLEVKL ERHGVKFTQ
301 DMLAGGTESS AVTVEWASE LLKKPEIFKK ATEELDRVIG QNRWVQEKDI PNLPIEIAIV
361 KETMRLHPVA PMLVPRECRE DIKVAGYDVQ KGTRVLVSVW TIGRDPTLWD EPEVFKPERF
421 HEKSIDVKGH DYELLFPFAG RRMCPGYSLG LKVIQASLAN LLHGFNWSLP DNMTPELDNM
481 DEIFGLSTPK KFPLATVIEP RLSPKLYSV

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FIG. 131

NAME D218A-AC2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 261

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1 CTTCTTCCTT CCTAACTAAA AATGGAGATT CAGTTTTCTA ACTTAGTTGC ATTCTTGCTC
61 TTTCTCTCCA GCATCTTTCT TGTATTCAAA AAATGGAAAA CCAGAAAAC TAAATTTGCCT
121 CCTGGTCCAT GGAAATTACC TTTTATTGGA AGTTTACACC ATTTGGCTGT GGCAGGTCCA
181 CTTCTCACC ATGGCCTAAA AAATTTAGCC AAACGCTATG GTCCTCTTAT GCATTTACAA
241 CTTGGACAAA TTCCTACACT CGTCATATCA TCACCTCAA TGGCAAAAGA AGTACTAAAA
301 ACTCACGACC TCGCTTTTGC CACTAGACCA AAGCTTGTCG TGGCCGACAT CATTCACTAC
361 GACAGCACGG ACATAGCACT TTCGCCATAC GGTGAATACT GGAGACAAAT TCGTAAAATT
421 TGCATATTGG AACTCTTGAG TGCCAAGATG GTCAAGTTTT TTAGCTCGAT TCGCCAAGAT
481 GAGCTCTCGA AGATGGTTTC ATCTATACGA ACGACGCCCA ATCTTCCAGT CAATCTTACC
541 GACAAGATTT TTTGGTTTAC GAGTTCGGTA ATTTGTAGAT CAGCTTTAGG GAAGATATGT
601 GGTGACCAAG ACAAATTGAT CATTTTTATG AGGGAAATAA TATCATTGGC AGGTGGATTT
661 AGTATTGCTG ATTTTTTCCC TACATGGAAA ATGATTCATG ATATTGATGG TTCAAAATCT
721 AAACGGTGA AGGCACATCG TAAGATTGAT GAAATTTTGG AAAATGTGGT AAATGAGCAC
781 AAACAGAAATC GAGCAGATGG TAAAAAGGGT AATGGTGAAT TTGGTGGAGA AGATCTGATT
841 GATGTTTTGT TAAGAGTTAG AGAAAAGTGA GAAGTTCAA TTCCAATCAC AGATGACAAT
901 ATCAAATCAA TATTAATCGA CATGTTCTCT GCCGGATCGG AAACATCATC GACAACATA
961 ATTTGGGCAT TAGCTGAAAT GATGAAGAAA CCAAGTGTTT TAGCAAAGGC ACAAGCTGAA
1021 GTGAGCCAAG CTTTGAAGGG GAAGAAAATT AGTTTTCAAG AGATTGATAT TGATAAGCTA
1081 AAGTATTTGA AGTTAGTGAT CAAAGAAACT TTAAGAATGC ACCCTCCAAT TCCTCTGTTA
1141 GTCCCTAGAG AATGTATGGA AGATACAAAG ATTGATGGTT ACAATATACC TTTCAAACA
1201 AGAGTCATTG TTAATGCATG GGCAATTGGA CGAGATCCTC AAAGTTGGGA TGATCCTGAA
1261 AGCTTTACGC CAGAGAGATT TGAGAATAAT TCTATTGATT TTCTTGGAAA TCATCATCAA
1321 TTTATTCCAT TTGGTGCAGG AAGAAGGATT TGTCTTGGAA TGCTATTTGG TTTAGCTAAT
1381 GTTGGACAAC CTTTAGCTCA GTTACTTTAT CACTTCGATT GGAAACTCCC TAATGGACAA
1441 ACTCACCAAA ATTTGACAT GACTGAGTCA CCTGGAATTT CTGCTACAAG AAAGGATGAT
1501 CTTATTTTGA TTGCCACTCC TGCTCATTCT TGATTAAGTA TTGCTGCTTT TCTATTGGAG
1561 AATTTTCAA ATTCATCCAC AATATATAGT GTTTGCTAGA GTTGGTTAGC

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SEQ. ID. NO. 262

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1 MEIQFSNLVA FLLFLSSIFL VFKKWKTRKL NLPPGPWKLP FIGSLHHLAV AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL VISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAL
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMVS SIRTTPNLPV NLTDKIFWFT
181 SSVICRSALG KICGDQDKLI IFMREIISLA GGFSDIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILENVV NEHKQNRADG KKGNGEFGGE DLIDVLLRVR ESSEVQIPIT DDNIKSILID
301 MFSAGSETSS TTIIWALAEM MKKPSVLAKA QAEVSQALKG KKISFQEIDI DKLKYLKLV
361 KETLRMHPII PLLVPRECME DTKIDGYNIP FKTRVIVNAW AIGRDPQSWD DPESFTPERF
421 ENNSIDFLGN HHQFIPFGAG RRICPGMLFG LANVGQPLAQ LLYHFDWKLP NGQTHQNFDM
481 TESPGISATR KDDLILITP AHS

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FIG. 132

NAME D210-BD4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 263

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1 CTTTCATCAT ATGGCATGAA ATGGGAAATG CTCACAACAG CAAAATTGCA GCAATCTGTT
61 TGATAATTTT CTTGGTATAT AAAGCATGGG AATTGTTGAA GTGGATATGG ATTAAGCCAA
121 AGAAACTGGA GAGTTGCCTC AGAAAACAGG GACTCAAAGG AAATtCCTAC GGGCTATTCT
181 ATGGAGATAT GAAAGAATtG TCCAAAAGTC TCAAGGAAAT CAATTCAAAG CCCATCATCA
241 ATCTATCAAA TGAAGTAGCC CCAAGAATCA TTCCTTATtA TCTTGAAATC ATCCAAAAAT
301 ATGGTAAAAG ATGTTTTGTT TGGCAAGGAC CAACCCCGC AATATTAATA ACAGAGCCAG
361 AATTAATAAA GGAGATATTT GGTAAGAACT ATGTTTTTCA GAAGCCTAAT AATCCCAACC
421 CACTGACCAA GTTATTGGCT CGAGGTGTTG TAAGCTACGA GGAAGAAAAA TGGGCAAAAC
481 ACAGAAAGAT CTTAAATCCT GCCTTTCATA TGGAGAAGTT GAAGCATATG CTACCAGCAT
541 TTTACTTGAG CTGTAGTGAG ATGCTGAACA AATGGGAGGA GATTATCCCA GTAAAAGAAT
601 CAAATGAGTT GGACATTTGG CCTCATCTTC AAAGAATGAC AAGTGATGTG ATTTCTCGTG
661 CTGCCTTTGG TAGTAGCTAC GAAGAAGGAA GAAGAATATT TGAACCTCAA GAAGAACAAG
721 CTGAGTATCT AACGAAGACA TTCAATTCAG TTTATATCCC AGGTTCCAGA TTTTTTCCCA
781 ATAAATGAA CAAAAGAATG AAAGAATGTG AAAAGGAAGT ACGAGAAACA ATTACGTGTC
841 TAATTGACAA CAGATTAAAG GCAAAAGAAG AAGGCAATGG CAAGGCCCTC AATGATGACC
901 TATTGGGTAT ATTATTAGAG TCAAATTCTA TAGAAATTGA AGAACATGGT AACAGAAGT
961 TTGGAATGAG TATACCTGAA GTAATTGAAG AGTGCAAATT ATTCTATTTT GCTGGCCAAG
1021 AGACTACATC AGTATTGCTT GTGTGGACAC TGATTTTGTT AGGGAGAAAt cCAGAATGGC
1081 AGGAACGTGC TAGAGAGGAA GTTTTTCAAG CCTTTGGAAG TGATAAACCA ACTTTTGACG
1141 AATTATATCG CTTGAAAATT GTGACGATGA TTTTGTACGA GTCTTTAAGG TTATATCCAC
1201 CAATAGCAAC TCGTACTCGA AGGACTAATG AAGAAACAAA ATTAGGGGAA CTAGATTTAC
1261 CAAAGGGTGC ACTGCTCTTT ATACCAACAA TCTTATTACA TCTTGACAGG GAAATTTGGG
1321 GTGAAGATGC AGATGAGTTC AATCCGGAGA GATTTAGCGA AGGGGTGGCA AAGGCAACAA
1381 AGGGGAAAAT GACATATTTT CCATTTGGTG CAGGACCGCG AAAATGCATT GGGCAAACT
1441 TCGCGATTTT GGAAGCAAAA ATGGCTATAG CTATGATTCT ACAACGCTTC TCCTTCGAGC
1501 TCTCTCCATC TTATACACAC TCTCCATACA CTGTGGTCAC TTTGAAACCC AAATATGGTG
1561 CTCCCCTAAT AATGCACAGG CTGTAGTCCT GTGAGAATAT GCTATCCGAG G

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SEQ. ID. NO. 264

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1 MGNAHNSKIA AICLIIFLVY KAWELLKWIW IKPKKLESCL RKQGLKGNSY GLFYGDMKEL
61 SKSLKEINSK PIINLSNEVA PRIIPYYLEI IQKYGKRCFV WQGPTPAILI TEPELIKEIF
121 GKNYVFQKPN NPNPLTKLLA RGVVSYYYYE WAKHRKILNP AFHMEKCLKHM LPAFYLSLSE
181 MLNKWEEIIP VKESNELDIW PHLQRMTSDV ISRAAFGSSY EEGRRIFELQ EEQAEYLTKT
241 FNSVYIPGSR FFPNKMNMKRM KECEKEVRET ITCLIDNRLK AKEEGNGKAL NDDLGLILLE
301 SNSIEIEEHG NKKFGMSIPE VIEECKLFYF AGQETTSVLL VWTLLILLGRN PEWQERAREE
361 VFQAFGSDKP TFDELYRLKI VTMIYESLR LYPPIATRTR RTNEETKLGE LDLPKGALLF
421 IPTILLHLDR EIWGEDADEF NPERFSEGVA KATKGKMTYF PFGAGPRKCI GQNFALILEAK
481 MAIAMILQRF SFELSPSYTH SPYTVVTLKP KYGAPLIMHR L

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FIG. 133

NAME D233-AG7
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 265

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1 CTCATTATCC ATCACCTAAA ATGGAGAATT CTTGGGTTTT TCTAGCCTTG GCAGGGCTAT
61 CTGCATTAGC TTTTCTCTGT AAAATAATCA CCTGTCGAAG ACCGGTTAAC CGGAAAATAC
121 CACCAGGTCC AAAACCATGG CCCATCATTG GCAATTTGAA CCTACTTGGT CCTATACCAC
181 ATCAATCTTT TGACTTGCTT TCCAAAAAAT ATGGAGAGTT GATGCTGCTG AAATTTGGCT
241 CCAGGCCAGT TCTTGTTGCT TCATCTGCTG AAATGGCAAA ACAGTTTTTA AAAGTACATG
301 ATGCTAATTT CGCCTCCCGT CCTATGCTAG CTGGTGGAAA GTATACAAGC TATAACTATT
361 GTGACATGAC ATGGGCACCC TATGGTCCCT ATTGGCGCCA AGCACGACGA ATTTACCTTA
421 ACCAGATATT TACTCCGAAA AGGCTAGACT CGTTCGAGTA CATTCGTGTT GAAGAAAAGG
481 AGGCCTTGAT TTCCCAGCTG AATTCCCTTG CTGGAAAGCC ATTTTTTCTC AAAGACCATT
541 TGTCGCGATT TAGCCTCTGC AGCATGACAA GGATGGTTTT GAGCAACAAG TATTTTGGTG
601 AATCAACAGT TAGAGTAGAA GATTTGCACT ACCTGGTAGA TCAATGGTTC TTACTTAATG
661 GTGCTTTCAA CATTGGAGAT TGGATTCCAT GGCTCAGCTT CTTGGACCTA CAAGGCTATG
721 TGAAACAAAT GAAGGCTTTG AAAAGAACTT TTGATAAGTT CCACAACATT GTGCTAGATG
781 ATCACAGGGC TAAGAAGAAT GCAGAGAAGA ACTTTGTCCC AAAAGACATG GTTGATGTCT
841 TGTTGAAGAT GGCTGAAGAT CCTAATCTGG AAGTCAAAC CACTAATGAC TGTGTCAAAG
901 GGTTAATGCA GGATTTACTA ACTGGAGGAA CAGATAGCTT AACAGCAGCA GTGCAATGGG
961 CATTTCGAAGA ACTTCTTAGA CAGCCAAGGG TTATTGAGAA GGCAACCGAA GAGCTTGACC
1021 GGATTGTCGG GAAAGAGAGA TGGGTAGAAG AGAAAGATTG CTCGCAGCTA TCTTACGTTG
1081 AAGCAATCCT CAAGGAAACA CTAAGGTTAC ATCCTCTAGG AACTATGCTA GCACCGCATT
1141 GTGCTATAGA AGATTGTAAC GTGGCTGGTT ATGACATACA GAAAGGAACG ACCTTTCTGG
1201 TGAATGTTTG GACCATTGGA AGGGACCCAA AATACTGGGA TAGAGCACAA GAGTTTCTCC
1261 CCGAGAGATT TTTAGAGAAC GACATTGATA TGGACGGACA TAACTTTGCT TTCTTGCCAT
1321 TTGGCTCGGG GCGAAGGAGG TGCCCTGGCT ATAGCCTTGG ACTTAAGGTT ATCCGAGTAA
1381 CATTAGCCAA CATGTTGCAT GGATTCAACT GGAAATTACC TGAAGGTATG AAGCCAGAAG
1441 ATATAAGTGT GGAAGAACAT TATGGGCTCA CTACACATCC TAAGTTTCCT GTTCCTGTGA
1501 TCTTGAATC TAGACTTTCT TCAGATCTCT ATTCCCCCAT CACTTAATCC TAAGTGCTTC
1561 CTATTATAGC

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SEQ. ID. NO. 266

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1 MENSWVFLAL AGLSALAFLC KIITCRRPVN RKIPPGPKPW PIIGNLNLLG PIPHQSFDDL
61 SKKYGELMLL KFGSRPVLVA SSAEMAKQFL KVHDANFASR PMLAGGKYTS YNYCDMTWAP
121 YGPYWRQARR IYLNQIFTPK RLDSFEYIRV EERQALISQL NSLAGKPFLL KDHLRFSLC
181 SMTRMVLSENK YFGESTVRVE DLQYLVDQWF LLNGAFNIGD WIPWLSFLDL QGYVKQMKAL
241 KRFTDKFHNI VLDDHRAKKN AEKNFVPKDM VDVLLKMAED PNLEVKLND CVKGLMQDLL
301 TGGTDSLTA VQWAFQELLR QPRVIEKATE ELDRIVGKER WVEEKDCSQL SYVEAILKET
361 LRLHPLGTML APHCAIEDCN VAGYDIQKGT TFLVNVWTIG RDPKYWDRAQ EFLPERFLEN
421 DIDMDGHNEA FLPPGSGRRR CPGYSLGLKV IRVTLANMLH GFNWKLEPGM KPEDISVEEH
481 YGLTTHPKFP VPVILESRLS SDLYSPIT

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FIG. 134

NAME D257-AE4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 267

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1 CACATTGAGT CCTCTCCCAA ATCACTGATT CACCACCAAA AGTACCAACA ATTCAATGGA
61 AGGTACAAAC TTGACTACAT ATGCAGCAGT ATTTCTTGAT ACTCTGTTTC TTTTGTTCCT
121 TTCCAAACTT CTTCCGCCAGA GGAAACTCAA TTTACCTCCA GGCCCAAAAC CATGGCCGAT
181 CATCGGAAAC TTAAACCTTA TTGGCAATCT TCCTCATCGC TCAATCCACG AACTCTCCCT
241 CAAGTACGGA CCCGTTATGC AACTCCAATT CGGGTCTTTC CCCGTTGTAG TTGGATCCTC
301 CGTCGAAATG GCTAAGATTT TCCTCAAATC CATGGATATT AACTTTGTAG GCAGGCCTAA
361 AACGGCTGCC GGAAAATACA CAACGTACAA TTATTCCGAT ATTACATGGT CTCCTTACGG
421 ACCATATTGG CGCCAGGCAC GTAGGATGTG CCTAACGGAA TTATTCAGCA CGAAACGTCT
481 CGATTCATAC GAGTATATTC GGGCTGAGGA GTTGCAATCT CTTCTCCATA ATTTGAACAA
541 AATATCAGGG AAACCAATTG TGTTGAAAGA TTATTTGACG ACGTTGAGTT TAAATGTTAT
601 TAGCAGGATG GTACTGGGGA AAAGGTATTT GGACGAATCC GAGAACTCGT TCGTGAATCC
661 TGAGGAATTT AAGAAGATGT TGGACGAATT GTTTTGTGTA AATGGTGTAC TTAATATTGG
721 AGATTCAATT CCATGGATTG ATTTTCATGGA TTTGCAAGGT TATGTTAAGA GGATGAAAGT
781 AGTGAGCAAG AAATTCGACA AGTTTTTAGA GCATGTTATT GATGAGCATA ACATTAGGAG
841 AAATGGAGTG GAGAATTATG TTGCTAAGGA TATGGTGGAT GTTTTGTTCG AGCTTGCTGA
901 TGATCCGAAG TTGGAAGTTA AGCTGGAGAG ACATGGAGTC AAAGCATTCA CTCAGGATAT
961 GCTGGCTGGT GGAACCGAGA GTTCAGCAGT GACAGTGGAG TGGGCAATTT CAGAGCTGCT
1021 AAAGAAGCCG GAGATTTTCA AAAAGGCTAC AGAAGAATTG GATCGAGTAA TTGGGCAGAA
1081 TAGATGGGTA CAAGAAAAGG ACATTCCAAA TCATCCTTAC ATAGAGGCAA TAGTCAAAGA
1141 GACTATGCGA CTGCACCCCG TGGCACCAAT GTTGGTGCCA CGTGAGTGTC GAGAAGATAT
1201 TAAGGTAGCA GGCTACGACG TTCAGAAAGG AACTAGGGTT CTCGTGAGTG TATGGACTAT
1261 TGGAAGAGAC CCTACATTGT GGGACGAGCC TGAGGTGTTT AAGCCGGAGA GATTCCATGA
1321 AAAGTCCATA GATGTTAAAG GACATGATTA TGAGCTTTTG CCATTGAGAG CGGGGAGAAG
1381 AATGTGCCCC GGTATAGCT TGGGGCTCAA GGTGATTCAA GCTAGCTTAG CTAATCTTCT
1441 ACATGGATTT AACTGGTCAT TGCCTGATAA TATGACTCCT GAGGACCTCA ACATGGATGA
1501 GATTTTTGGG CTCTCTACAC CTAAGAAATT TCCACTTGCT ACTGTGATTG AGCCAAGACT
1561 TTCACCAAAA CTTTACTCTG TTTGATTGAG CAGTTCTATG GATCCGTCAA GATAGAC

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SEQ. ID. NO. 268

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1 MEGTNLTYYA AVFLDTLFLF FLSKLLRQRK LNLPPGPKPW PIIGNLNLIG NLPHRSIHEL
61 SLKYGPVMQL QFGSFPVVVG SSVEMAKIFL KSMDINFEVGR PKTAAGKYTT YNYSBITWSP
121 YGPYWRQARR MCLTELFSTK RLDSYFYIRA EELHSLHLNL NKISGKPIVL KDYLTTLSLN
181 VISRMVLGKR YLDESENSFV NPEEFKMLD ELFLNGVLN IGDSIPWIDF MDLQGYVKRM
241 KVVSKKFDKF LEHVIDEHNI RRNGVENYVA KDMVDVLLQL ADDEPKLEVKL ERHGVKAFTQ
301 DMLAGGTESS AVTVEWASE LLKKPEIFKK ATEELDRVIG QNRWVQEKDI PNHPYIEAIV
361 KETMRLHPVA PMLVPRECRE DIKVAGYDVQ KGTRVLVSVW TIGRDP TLWD EPEVFKPERF
421 HEKSIDVKGH DYELLPGAG RRMCPGYSLG LKVIQASLAN LLHGFNWSLP DNMT PEDLNM
481 DEIFGLSTPK KFPLATVIEP RLSPKLYSV

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FIG. 135

NAME D268-AE2
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 269

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1 TGCAATATAG TTTTCCTAGT CAGTTCTAGC CTCCTTTTCC TTAGAAATAA TGGATTATCA
61 TATTTCTTTC CATTTTCAAG CTCTTTTAGG GCTTTTAGCC TTTGTGTTCT TGTCTATTAT
121 CTTATGGAGA AGAACACTCA CTTCAAGAAA ATTAGCCCCT GAAATCCCAG GGGCATGGCC
181 TATTATAGGC CATCTTCGTC AGCTGAGTGG TACTGATAAG AATATCCCAT TTCCCCGAAT
241 ATTGGGCGCT TTGGCAGATA AATATGGACC TGTCTTCACA CTGAGAATAG GGATGTACCC
301 CTATTTGATT GTCAACAATT GGGGAAGCAGC TAAGGATTGT CTCACAACGC ATGATAAGGA
361 CTTGCTGCC CGACCAACTT CTATGGCTGG TGAAAGCATC GGGTACAAGT ATGCGAGGTT
421 TACTTATGCT AATTTTGGTC CTTATTATAA CCAAGTGCGC AAAGTAGCCC TACAACATGT
481 ACTCTCGAGT ACTAAACTCG AGAAAATGAA ACACATACGT GTTTCTGAAT TGGAAACTAG
541 CATCAAAGAA TTATATTCTT TGACGCTGGG CAAAAACAAC ATGCAAAAAG TGAATATAAG
601 TAAATGGTTT GAACAATTGA CTTTAAACAT AATCGTGAAG ACAATTTGTG GCAAGAGATA
661 TAGCAACATA GAGGAGGATG AAGAGGCACA ACGTTTCAGA AAGGCATTTA AGGGCATCAT
721 GTTGTGTGA GGGCAAATTG TTTTATATGA CGCAATTCCA TTCCCATTTG TCAAATACTT
781 TGATTTCCAA GGTCAATATAC AATTGATGAA CAAAATTTAT AAAGACTTAG ATTCTATTCT
841 TCAAGGATGG TTGGATGATC ATATGATGAA CAAGGATGTA AACAATAAGG ATCAAGATGC
901 CATAGATGCC ATGCTTAAGG TAACACAAC TAATGAATTC AAAGCCTATG GTTTTTCTCA
961 GGCCACTGTG ATCAAGTCGA CAGTCTTGAG TTTGATCTTA GATGGAAATG ACACAACCGC
1021 TGTTCAATTTG ATATGGGTAA TGTCCTTATT ACTGAACAAT CCACATGTTA TGAAACAAGG
1081 CCAAGAAGAG ATAGACATGA AAGTGGGTAA AGAGAGGTGG ATTGAAGATA CTGACATAAA
1141 AAATTTAGTG TACCTTCAGG CTATCGTTAA AGAGACATTG CGCTTGTATC CACCTGTTCC
1201 TTTTCTTTTA CCACACGAAG CAGTGCAAGA TTGTAAAGTG ACTGGTTACC ACATTCCTAA
1261 AGGTACTCGT CTATATATCA ATGCGTGGA AGTACATCGC GATTCTGAAA TTTGGTCAGA
1321 GCCCGAAAAG TTTATGCCCA ATAGATTCTT GACTAGCAAA GCAAATATAG ATGCTCGCGG
1381 TCAAAAATTT GAATTTATAC CGTTTGGTTC TGGGAGACGG TCATGTCCAG GGTAGGTTT
1441 TGCGACTTTA GTGACACATC TGACTTTTGG TCGCTTGCTT CAAGGTTTTG ATTTTAGTAA
1501 GCCATCAAAC ACGCCAATTG ACATGACAGA AGGCGTAGGC GTTACTTTGC CTAAGGTTAA
1561 TCAAGTTGAA GTTCTAATTA CCCCTCGTTT ACCTTCTAAG CTTTATTTAT TTTGAAAGTG
1621 CAAATCATCA ATCATGGGTT GAGTAATTAG TGATACT

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SEQ. ID. NO. 270

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1 MDYHISFHFQ ALLGLLAFVF LSIILWRRTL TSRKLAPEIP GAWPIIGHLR QLSGTDKNIP
61 FPRILGALAD KYGPVFTLRI GMPYLVNWN WEAAKDCLTT HDKDFAARPT SMAGESIGYK
121 YARFTYANFG PYYNQVRKLA LQHVLSSTKL EKMKHIRVSE LETSIKELYS LTLGKNNMQK
181 VNISKWFEQL TLNIIVK TIC GKRYSNIEED EEAQRFRKAF KGIMFVVGQI VLYDAIPFPL
241 FKYFDFQGHI QLMNKIYKDL DSILQGWLDD HMMNKDVNNK DQDAIDAMLK VTQLNEFKAY
301 GFSQATVIKS TVLSLILDGN DTTAVHLI WV MSLLLNNPHV MKQGQEEIDM KVGKERWIED
361 TDIKNLVYLQ AIVKETLRLY PPVPFLPHE AVQDCKVTGY HIPKGTRLYI NAWKVHRDSE
421 IWSEPEKFMP NRFLTSKANI DARGQNF EFI PFGSGRRSCP GLGFATLVTH LTFGRLLQGF
481 DFSKPSNTPI DMTEGVGVTL PKVNQVEVLI TPRLP SKLYL F

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FIG. 136

NAME D283-AC1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 271

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1 AGAGAGTGAA AATGGACGCA CTACTTCAAA TGACAGTAAC AGCATCTTGT GCTGCCATAG
61 TAATTACTCT GCTGGTGTGT ATATGGAGAG TGCTGAACTG GATTTGGTTC AGACCAAAGA
121 AATTGGAGTT GTTGTTGAGA AAACAAGGTT TGGAAGGAAA TTCTTACAAG GTTTTGTATG
181 GGGACATGAA AGAGTTTTCT GGGATGATTA AGGAAGCATA CTCAAAGCCT ATGAGTCTAT
241 CTGATGATGT AGCACCAAGA CTGATGCCTT TCTTTCTTGA AACCATCAAA AAATATGGAA
301 AAAGATCCTT TATATGGTTT GGTCCAAGAC CACTAGTATT GATTATGGAT CCTGAGCTTA
361 TAAAGGAAGT ACTCTCAAAA ATCCATCTGT ATCAAAAGCC TGGTGGAAAT CCATTAGCAA
421 CACTATTGGT ACAAGGAATA GCAACCTATG AGGAAGACAA ATGGGCCAAA CATAGAAAAA
481 TCATCAATCC CGCTTTCCAT CTAGAGAAGC TAAAGCTTAT GCTTCCAGCA TTTCGCTTAA
541 GCTGTAGTGA GATGCTGAGC AAATGGGAAG ACATTGTTTC AGCTGATAGC TCACATGAGA
601 TAGATGTATG GTCTCACCTT GAGCAATTGA CTTGCGATGT GATCTCTCGG ACAGCTTTTG
661 GCAGTAGTTA TGAAGAAGGT AGAAAGATT TTTGAACTTCA AAAGGAACAA GCTCAGTATC
721 TTGTGGAAAGT TTTCCGCTCC GTTTATATCC CAGGAAGGAG ATTTTGGCCA ACAAAGAGGA
781 ATAGAAGAAT GAAGGAAATA AAAAAGGATG TCCGGGCATC AATTAAAGGT ATTATTGATA
841 AAAGATTGAA GGCAATGAAA GCAGGGGACA CCAATAATGA GGATCTATTG GGTATATTAC
901 TGGAATCGaA TATTAAAGAA ATTGAACAGC ACGGAAACAA GGATTTTGGG ATGAGCATTG
961 AAGAAGTCAT TGAAGAATGC AAGTTATTCT ATTTTGCTGG CCAAGAAACT ACATCAGTGT
1021 TACTCCTATG GTCTCTAGTG TTGTTGAGCA GGTATCAAGA TTGGCAGGCA CGGGCCAGAG
1081 AAGAAATCTT GCAAGTCTTT GGCAGTCGAA AACCAGATTT TGACGGATTA AATCATCTAA
1141 AAATTGTGAC AATGATCTTG TACGAGTCTT TAAGGCTGTA TCCCTCACTA ATAACACTTA
1201 CCCGCCGGTG TAATGAAGAC ATTGTATTAG GAGAACTATC TCTACCAGCT GGTGTTCTAG
1261 TCTCTTTGCC ATTGATTTTG TTGCATCATG ATGAAGAGAT ATGGGGTGAA GATGCAAAGG
1321 AGTTCAAACC AGAGAGATTT AGAGAAAGGAA TATCAAGTGC AACAAAGGGT CAACTCACAT
1381 ATTTTCCATT TAGCTGGGGT CCTAGAATAT GTATTGGACA AAATTTTGCC ATGTTAGAAG
1441 CAAAGATGGC TCTGTCTATG ATCCTGCAAC GCTTCTCTTT TGAAGTGTCT CCGTCTTATG
1501 CACATGCCCC TCGGTCCATA ATAACCGTTC AGCCTCAGTA TGGTGCTCCA CTTATTTTCC
1561 ACAAACATA ATTTTGGTAC TTCTACTAAT ATTTTAGGGT TTATTCAGAC TCAAAAAAAA

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SEQ. ID. NO. 272

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1 MVTASCAAI VITLLVCIWR VLNWIWFRPK KLELLLRLKQG LEGNSYKVLY GDMKEFSGMI
61 KEAYSKPMSL SDDVAPRLMP FFLETIKKYG KRSFIWFGPR PLVLIMDPOL IKEVLSKIHL
121 YQKPGGNPLA TLLVQGIATY EEDKWAKHRK IINPAFHLEK LKLMPLAFRL SCSEMLSKWE
181 DIVSADSSHE IDVWSHLEQL TCDVISRTAF GSSYEEGRKI FELQKEQAQY LVEVFRSVYI
241 PGRRFLPTKR NRRMKEIKKD VRASIKGIID KRLKAMKAGD TNNEDLLGIL LESNIKEIEQ
301 HGKDFGMSI EEVIEECKLF YFAGQETTSV LLLWSLVLLS RYQDWQARAR EEILQVFGSR
361 KPFDGGLNHL KIVTMILYES LRLYPSLITL TRRCNEDIVL GELSPLAGVL VSLPLILLHH
421 DEEIWGEDAK EFKPERFREG ISSATKGQLT YFPFSWGPRI CIGQNFAMLE AKMALSMILQ
481 RFSFELSPSY AHAPRSIITV QPQYGAPLIF HKL

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FIG. 137

NAME D244-AB6
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 273

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1 TGCAATATAG TTTTCCTAGT CAGTTCCTAGC CTCCTTTTCC TTAGAAATAA TGGATTATCA
61 TATTTCTTTC CATTTTCAAG CTCTTTTAGG GCTTTTAGCC TTTGTGTTCT TGTCTATTAT
121 CTTATGGAGA AGAACACTCA CTTCAAGAAA ATTAGCCCCT GAAATCCCAG GGGCATGGCC
181 TATTATAGGC CATCTTCGTC AGCTGAGTGG TACTGATAAG AATATCCCAT TTCCCCGAAT
241 ATTGGGCGCT TTGGCAGATA AATATGGACC TGTCTTCACA CTGAGAATAG GGATGTACCC
301 CTATTTGATT GTCAACAATT GGAAGCAGC TAAGGATTGT CTCACAACGC ATGATAAGGA
361 CTTggCTGCC CGACCAACTT CTATGGCTGG TGAAAGCATC GGGTACAAGT ATGCGAGGTT
421 TACTTATGCT AATTTTGGTC CTTATTATAA CCAAGTGCGC AAAGTAGCCC TACAACATGT
481 ACTCTCGAGT ACTAACTCG AGAAAATGAA ACACATACGT GTTTCTGAAT TGGAAACTAG
541 CATCAAAGAA TTATATTCTT TGACGCTGGG CAAAAACAAC ATGCAAAAAG TGAATATAAG
601 TAAATGGTTT GAACAATTGA CTTTAAACAT AATCGTGAAG ACAATTTGTG GCAAGAGATA
661 TAGCAACATA GAGGAGGATG AAGAGGCACA ACGTTTCAGA AAGGCATTTA AGGGCATCAT
721 GTTTGTTGTA GGGCAAATTG TTTTATATGA CGCAATTCCA TTCCCATTGT TCAAATACTT
781 TGATTTCCAA GGTCAATATAC AATTGATGAA CAAAATTTAT AAAGACTTAG ATTCTATTCT
841 TCAAGGATGG TTGGATGATC ATATGATGAA CAAGGATGTA AACAATAAGG ATCAAGATGC
901 CATAGATGCC ATGCTTAAGG TAACACAAC TAATGAATTC AAAGCCTATG GTTTTTCTCA
961 GGCCACTGTG ATCAAGTCGA CAGTCTTGAG TTTGATCTTA GATGGAAATG ACACAACCGC
1021 TGTTCAATTTG ATATGGGTAA TGTCTTATT ACTGAACAAT CCACATGTTA TGAAACAAGG
1081 CCAAGAAGAG ATAGACATGA AAGTGGGTAA AGAGAGGTGG ATTGAAGATA CTGACATAAA
1141 AAATTTAGTG TACCTTCAGG CTATCGTTAA AGAGACATTG CGCTTGTATC CACCTGTTCC
1201 TTTTCTTTTA CCACACGAAG CAGTGCAAGA TTGTAAAGTG ACTGGTTACC ACATTCCTAA
1261 AGGTACTCGT CTATATATCA ATGCGTGGAA AGTACATCGC GATCCTGAAA TTTGGTCAGA
1321 GCCCGAAAAG TTTATGCCCA ATAGATTCTT GACTAGCAA GCAAATATAG ATGCTCGCGG
1381 TCAAAATTTT GAATTTATAC CGTTTGGTTC TGGGAGACGG TCATGTCCAG GGATAGGTTT
1441 TGCGACTTTA GTGACACATC TGACTTTTGG TCGCTTGCTT CAAGGTTTTG ATTTTAGTAA
1501 GCCATCAAAC ACGCCAATTG ACATGACAGA AGGCGTAGGC GTTACTTTGC CTAAGGTTAA
1561 TCAAGTTGAA GTTCTAATTA CCCCTCGTTT ACCTTCTAAG CTTTATTTAT TTTGAAGGTG
1621 CAAATCATCA ATCATGGCTT GAGTAATTAG TTATACTTTA ATATGTTTCT C

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SEQ. ID. NO. 274

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1 MDYHISFHFQ ALLGLLAFVF LSIILWRRTL TSRKLAPEIP GAWPIIGHLR QLSGTDKNIP
61 FPRILGALAD KYGPVFTLRI GMPYLVNWN WEAAKDCLTT HDKDLAARPT SMAGESIGYK
121 YARFTYANFG PYYNQVRKLA LQHVLSSTKL EKMKHIVSE LETSIKELYS LTLGKNMQK
181 VNISKWFEQL TLNIIVKTIC GKRYSNIEED EEAQRFRKAF KGIMFVVGQI VLYDAIPFPL
241 FKYFDFQGHI QLMNKIYKDL DSILOGLWDD HMMNKDVNNK DQDAIDAMLK VTQLNEFKAY
301 GFSQATVIKS TVLSLILDGN DTTAVHLIIV MSLLLNNPHV MKQGQEEIDM KVGKERWIED
361 TDIKNLVYLQ AIVKETLRLY PPVPFLLPHE AVQDCKVTGY HIPKGTRLYI NAWKVHRDPE
421 IWSEPEKFMP NRFLTSKANI DARGQNFEFI PFGSGRRSCP GIGFATLVTH LTFGRLLQGF
481 DFSKPSNTPI DMTEGVGVTL PKVNQVEVLI TPRLPSKLYL F

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FIG. 138

NAME D205-BE9
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 275

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1 TTTGATTCAA CCATGGAGAA CCAATACTCC TACTCATTCT CTTCTACTT CTACTTAGCT
61 ATAGTACTGT TTCTTCTTCC AATTTTGGTC AAATATTTCT TCCATCGGAG AAGAAATTTA
121 CCTCCAAGTC CATTTTCTCT TCCAATAATT GGTACCTTT ACCTTCTCAA GAAAACTCTC
181 CATCTCACTC TAACATCCTT ATCAGCTAAA TATGGTCCTG TTTTATACCT CAAATTGGGC
241 TCTATGCCTG TGATTGTTGT GTCCTACCA TCTGCTGTTG AAGAATGTTT AACCAAGAAT
301 GATATCATAT TCGCAAATAG GCCCAAGACC GTGGCTGGTG ACAAGTTTAC CTACAATTAT
361 ACTGTTTATG TTTGGGCACC CTATGGCCAA CTTTGGAGAA TTCTTCGCCG ATTAAGTCTC
421 GTTGAAGTCT TCTCTTCACA TAGCCTACAG AAAACTTCTA TCCTTAGAGA TCAAGAAGTT
481 GCAATATTTA TCCGTTTCGT ATACAAATTC TCAAAGGATA GTAGCAAAAA AGTCGATTG
541 ACCAACTGGT CTTTACTTTT GGTTTTCAAT CTTATGACCA AAATTATTGC TGGGAGACAT
601 ATTGTGAAGG AGGAAGATGC TGGCAAGGAA AAGGGCATTG AAATTATTGA AAAACTTAGA
661 GGGACTTTCT TAGTAACTAC ATCATTCTTG AATATGTGTG ATTTCTTGCC AGTATTCAGG
721 TGGGTTGGTT ACAAAGGGCA GGAGAAGAAG ATGGCCTCAA TTCACAATAG AAGAAATGAA
781 TTCTTGAACA GCTTGCTTGA TGAATTCGA CACAAGAAAA GTAGTGCTTC ACAATCTAAC
841 ACAACTGTTG GAAACATGGA GAAGAAAACC ACCTGATTG AAAAGCTCTT GTCTCTTCAA
901 GAATCAGAGC CTGAATTCTA CACTGATGAT ATCATCAAAA GTATTATGCT GGTAGTTTTT
961 GTTGCAGGAA CAGAGACCTC ATCAACAACC ATCCAATGGG TAATGAGGCT TCTTGTAGCT
1021 CACCCTGAGG CATTGTATAA GCTACGAGCT GACATTGACA GTAAAGTTGG GAATAAGCGC
1081 TTGCTGAATG AATCAGACCT CAACAAGCTT CCGTATTTGC ATTGTGTTGT TAATGAGACA
1141 ATGAGATTAT AACTCCGAT ACCACTTTTA TTGCCTCATT ATTCAACTAA AGATTGTATT
1201 GTGGAAGGAT ATGATGTACC AAAACATACA ATGTTGTTTG TCAACGCTTG GGCCATTAC
1261 AGGGATCCCA AGGTATGGGA GGAGCCTGAC AAGTTCAAGC CAGAGAGATT TGAGGCAACA
1321 GAAGGGGAAA CAGAAAGGTT CAATTACAAG CTTGTACCAT TTGGAATGGG GAGAAGAGCG
1381 TGCCCTGGAG CTGATATGGG GTTGCAGACA GTTCTTTTGG CATTAGGTGC ACTTATTCAA
1441 TGCTTTGACT GGCAAATTGA GGAAGCGGAA AGCTTGAGG AAAGCTATAA TTCTAGAATG
1501 ACTATGCAGA ACAAGCCTTT GAAGGTTGTC TGCACTCCAC GCGAAGATCT TGGCCAGCTT
1561 CTATCCCAAC TCTAAGGCAA TTTATCAATG CCAAACGTAA TCTTCATCTA CCACTATG

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SEQ. ID. NO. 276

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1 MENQSYSFS SYFYLAIVLF LLPILVKYFF HRRRNLPSP FSLPIIGHLY LLKKTLLHLTL
61 TSLSAKYGPV LYLKLGSMVP IVVSSPSAVE ECLTKNDIIF ANRPKTVAGD KFTYNYTVYV
121 WAPYGQLWRI LRRLTVVELF SSHSLQKTSI LRDQEVAFI RSLYKFSKDS SKKVDLTNWS
181 FTLVFNLMK IIAGRHIKE EDAGKEKGIE IIEKLRGTFL VTTSFLNMCD FLPVFRWVG
241 KGQEKMASI HNRRNEFLNS LLDEFKHKKS SASQSNTTVG NMEKKTLLIE KLLSLQSESEP
301 EFTDDIIS IMLVVFVAGT ETSSTTIQWV MRLVVAHPEA LYKL RADIDS KVG NRLLNE
361 SDLNKLPLYH CVVNETMRLY TPIPLLLPHY STKDCIVEGY DVPKHTMLFV NAWAIHRDPK
421 VWEEDPKFKP ERFEATEGET ERFNYKLVPF GMGRRACPGA DMGLRAVSLA LGALIQCFDW
481 QIEEAESLEE SYNRMQON KPLKVVCTPR EDLGQLLSQL

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FIG. 139

NAME D136-AF4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 277

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1 CCTTTTAAAG ATGTATTTAA GATTTAAGAT TTAAGATGAA GCAACTGAGG TAAGTCCTTT
61 CAAGGAGTAG TTGTCACCTC TGAGAATGGA GATGATGTAC AGCATAATAG CAGCAGCCAG
121 TATTGCAATT ATCTTGGTAT ATACATGGAA AGTGTGAAT TGGGCTTGGT TTGGGCCGAA
181 GAAAATGGAG AAATGCTTAA GACAGAGGGG TCTCAAGGGA AATCCTTATA AGCTACTCTA
241 TGGAGATCTA AACGAACTGA CAAAAAGCAT AATAGAAGCC AAGTCTAAGC CCATCAATTT
301 CTCTGATGAT ATTGCTCAAA GGCTCATCCC TTTTTTCTT GACGCCATCA ACAAATATGG
361 TAAAAACTCC TTCGTCTGGC TTGGACCGTA TCCAATAGTG TTGATCACGG ATCTTGAGCA
421 TTTAAAGGAG ATTTTCACAA AGAATTATGT GTATCAAAAG CAACTCATC CCAATCCATA
481 CGCCAAGCTA TTAGCTCAGC GTCTTGTCAG CCTTGAGGAA GACAAATGGG CCAAACACAG
541 AAAAATCATT AGTCCTGCCT TCCATGTCGA GAAGCTAAAG CATATGCTGC CTGCATTTTA
601 TCTGAGTTGT AGTGAAATGA TAAGCAAATG GGAGGAGGTT GTTCCAAAAG AAACATCATT
661 CGAGCTCGAT GTATGGCCAG ACCTTCAAAT AATGACCAGT GAAGTCATTT CTCGCACTGC
721 ATTTGGGAGT AGCTATGAAG AAGGAAGAAT AGTATTTGAA CTTAGAAAAG AACAAAGCTGA
781 GTATGTAATG GACATAGGAC GTTCAATTTA TATACCAGGA TCAAGGTTCT TGCCTACTAA
841 AAGGAACAAA AGAATGCTGG AAATTGAAAA GCAAGTGCAA ACAACAATTA GGCATATCAT
901 CGACAAAAGA TTGAAGGCAA TGGAAGAAGG GGAGACTAGT AAAGATGACT TATTAGGCAT
961 ATTACTTGAA TCCAATTTGA AAGAAATTGA ACTTCATGGA AGAAATGACT TGGGAATAAC
1021 AACGTCAGAA GTGATTGAAG AGTGCAAGTT ATTCTATTTT GCCGGCCAAG AGACCACTTC
1081 AGTGTGCTT GTTTGGACAA TGATTTTGTT GTGCTTACAT CCAGAGTGGC AAGTACGTGC
1141 CAGAAAGGAA GTGTTGCAGA TCTTTGGAAA TGATAAACCA GATTTGGAAG GACTAAGTCG
1201 CTTGAAAATT GTAACAATGA TCTTGACGA GACGTTACGC CTATCCCCC CATTACCAGC
1261 ATTTGGTAGA AGGAACAAAG AAGAAGTCAA ATTAGGGGAG CTACATCTAC CGGCTGGAGT
1321 GTTACTCGTT ATACCAGCAA TCTTAGTACA TTATGATAAG GAAATATGGG GTGAAGATGC
1381 AAAGGAATTC AAACCAGAAA GATTCACTGA AGGAGTGTCA AAGGCAACAA ATGGACAAGT
1441 CTCATTTATA CCATTTAGCT GGGGACCTCG TGTTTGCAAT GGACAAAAC TCGCAATGAT
1501 GGAAGCAAAA ATGGCAGTAA CTATGATACT ACAAAAATTC TCCTTTGAAC TATCCCCTTC
1561 TTATACACAT GCTCCATTTG CAATTGTGAC TATTCATCCC CAGTATGGTG CTCCTCTGCT
1621 TATGCGCAGA CTTTAAAACA TATGTTGCTG ATATTTAAGA TCAGTGGCGT TTTATT

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SEQ. ID. NO. 278

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1 MEMMYSIIAA ASIAIILVYT WKVLNWAWFG PKKMEKCLRQ RGLKGNPYKL LYGDLNELTK
61 SIIEAKSKPI NFSDDIAQRL IPFFLDANK NGKNSFVWLG PYPIVLITDP EHLKEIFTKN
121 YVYQKQTHPN PYAKLLAHGL VSLEEDKWAK HRKIISPAFH VEKLKHLMPA FYLSCSEMIS
181 KWEEVVPKET SFELDVWPD LQIMTSEVISR TAFGSSYE EG RIVFELQKEQ AEYVMDIGRS
241 IYIPGSRFLP TKRNKRMLEI EKQVQTTIRR IIDKRLKAME EGETSKDDL GILLESNLKE
301 IELHGRNDLG ITTSEVIEEC KLFYFAGQET TSVLLVWTMI LLCLHPEWQV RARKEVLQIF
361 GNDKPDLEGL SRLKIVTMIL YETLRLFPPL PAFGRRNKEE VKLGELHLP GVLVLPAIL
421 VHYDKEIWGE DAKEFKPERF SEGVSKATNG QVSFIPFSWG PRVCIGQNFA MMEAKMAVTM
481 ILQKFSFELS PSYTHAPFAI VTIHPQYGAP LLMRRL

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FIG. 140

NAME D101-BA2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 279

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1 CTAATTTTCA TATACCTTTA GTACTCTTGA AATTTTCAAA TAATGGTTTA TCTTCTTTCT
61 CCCATAGAAG CCATTGTAGG ATTTGTAAAC TTTTCATTTT TATTCTACTT TCTATGGACC
121 AAAAAACAAT CAAAAATCTT AAACCCACTA CCTCCAAAAA TCCCAGGTGG ATGGCCAGTA
181 ATCGGCCATC TCTTTTATTT CAAGAACAAT GCGGATGAAG ATCGCCATTT TTCTCAAAAA
241 CTCGGTGACT TAGCTGACAA ATATGGTCCC GTCTTCACTT TCCGGTTAGG GTTTCGCCGT
301 TTCTTGGCGG TGAGTAGTTA TGAAGCTATG AAAGAATGCT TCACTACCAA TGATATCCAT
361 TTCGCCGATC GGCCATCTTT ACTCTACGGA GAATACCTTT GCTATAATAA TGCCATGCTT
421 GCTGTTGCCA AATATGGCCC TTACTGGAAA AAAAATCGAA AGTTAGTCAA TCAAGAAGTT
481 CTCTCCGTTA GTCGGCTCGA AAAATTCAAA CATGTTAGAT TTTCTATAAT TCAGAAAAAT
541 ATTAAACAAT TGTATAATTG TGATTCACCA ATGGTGAAGA TAAACCTTAG TGATTGGATA
601 GATAAATTGA CATTGACAT CATTTTGAAA ATGGTTGTTG GGAAGAACTA TAATAATGGA
661 CATGGAGAAA TACTCAAAGT TGCTTTTCAG AAATTCATGG TTCAAGCTAT GGAGATGGAG
721 CTCTATGATG TTTTTCACAT TCCATTTTTC AAGTGGTTGG ATCTTACAGG GAATATTAAG
781 GCTATGAAAC AAACTTTCAA AGACATTGAT AATATTATCC AAGGTTGGTT AGATGAGCAC
841 ATTAAGAAGA GAGAAACAAA GGATGTTGGA GGTGAAAACG AACAAGATTT TATAGATGTG
901 GTGCTTTCCA AGATGAGCGA CGAACATCTT GCGGAGGGTT ACTCTCATGA CACAACCATC
961 AAAGCAACTG TATTCACCTT GGTCTTGGAT GCAACAGACA CACTTGCACT TCATATAAAG
1021 TGGGTAATGG CGTTAATGAT AAACAATAAG CATGTCATGA AGAAAGCACA AGAAGAGATG
1081 GACACAATTG TTGGTAGAGA TAGATGGGTA GAAGAGAGTG ATATCAAGAA TTTGGTGTAT
1141 CTCCAAGCAA TTGTTAAAGA AGTATTACGA TTACATCCAC CTGCACCTTT GTCAGTGCAA
1201 CACCTATCTG TGGAAGATTG TGTTGTCAAT GGGTACCATA TTCCTAAGGG GACTGCACTA
1261 CTTACCAATA TTATGAAACT ACAGCGAGAT CCTCAAACAT GGCCAAATCC TGATAAATTC
1321 GATCCAGAGA GATTCTTGAC GACTCATGCT ACTATTGACT ACCGCGGGCA GCACTATGAG
1381 TTGATCCCTT TTGGTACGGG GAGACGAGCT TGTCCCGCGA TGAATTATTC ATTGCAAGTG
1441 GAACACCTTT CAATTGCTCA TATGATCCAA GGTTCAGTT TTGCAACTAC GACCAATGAG
1501 CCTTTGGATA TGAAACAAGG TGTGGGTTTA ACTTTACCAA AGAAGACTGA TGTGAAGTT
1561 CTAATTACCC CTCGTTT

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SEQ. ID. NO. 280

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1 MVYLLSPIEA IVGFVTFSEFL FYFLWTKKQS KILNPLPPKI PGGWPVIGHL FYFKNNGDED
61 RHFSQKLGLD ADKYGPVETF RLGFRRFLAV SSYEAMKECF TTNDIHFADR PSLLYGEYLC
121 YNNAMLAVAK YGPYWKKNRK LVNQEVLSVS RLEKFKHVRF SIIQKNIKQL YNCDSMPVKI
181 NLSDWIDKLT FDIILKMVVG KNYNNGHGEI LKVAFOKFMV QAMEMELYDV FHIPFFKWLD
241 LTGNIKAMKQ TFKDIDNIIQ GWLDEHIKKR ETKDVGGENE QDFIDVVL SK MSDEHLGEGY
301 SHDTTIKATV FTLVL DATDT LALHIKWMA LMNNKHVMK KAQEEMDTIV GRDRWVEESD
361 IKNLVYLQAI VKEVLR LHPP APLSVQHLSV EDCVVNGYHI PKGTALLTNI MKLQORDPQTW
421 PNPDKFDPER FLTHATIDY RGQHYELIPF GTGRRACPAM NYSLQVEHLS IAHIQGF SF
481 ATTTNEPLDM KQGVGLTLPK KTDVEVLITP R

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FIG. 141

NAME D130-AA1
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 281

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1 CTTTTTCTCC CCAAAAAAGA GCTCATTTCC CTTGTCCCCA AAAATGGATC TTCTCTTACT
61 AGAGAAGACC TTAATTGGTC TCTTCTTTGC CATTTTAAATC GCTGTAATTG TCTCTAGACT
121 TCGTTCAAAG CGTTTTAAGC TTCCCCCAGG ACCAATCCCA GTACCAAGTTT TTGGTAATTG
181 GCTTCAAGTT GGTGATGATT TAAACCACAG AAATCTTACT GATTTTGCCA AAAAATTGGG
241 TGATCTTTTC TTGTTAAGAA TGGGCCAGCG TAATTTAGTT GTTGTGTCAT CTCCTGAATT
301 AGCTAAAGAA GTTTTACACA CACAAGGTGT TGAATTTGGT TCAAGAACAA GAAATGTTGT
361 ATTTGATATT TTTACTGGAA AAGGTCAAGA TATGGTTTTT ACTGTATATG GTGAACACTG
421 GAGAAAAATG AGGAGAATTA TGACTGTACC ATTTTTTACT AATAAAGTTG TGCAGCAATA
481 TAGAGGGGGG TGGGAGTTTG AAGTGGCAAG TGTAATTGAG GATGTGAAGA AAAATCCTGA
541 ATCTGCTACT AATGGGATTG TATNAAGGAG GAGATTACAA TTGATGATGT ATAATAATAT
601 GTTTAGGATT ATGTTTGATA GGAGATTTGA GAGTGAAGAT GATCCTTTGT TTGTTAAGCT
661 TAAGGCTTTG AATGGTGAAA GGAGTAGATT GGCTCAGAGT TTTGAGTATA ATTATGGTGA
721 TTTTATTCCC ATTTTGAGGC CTTTTTTGAG AGGTTATTTG AAGATCTGTA AAGAAGTTAA
781 GGAGAAGAGG CTGCAGCTTT TCAAAGATTA CTTTGTTGAT GAAAGAAAGA AGCTTTCAAA
841 TACCAAGAGC TTGGACAGCA ATGCTCTGAA ATGTGCGATT GATCACATTC TTGAGGCTCA
901 ACAGAAGGGG GAGATCAATG AGGACAACGT TCTTTACATT GTTGAAAACA TCAATGTTGC
961 TGCTATAGAA ACCACATTAT GGTCAATTGA GTGGGGTATC GCCGAGTTAG TCAACCACCC
1021 TCACATCCAA AAGAAACTCC GCGACGAGAT TGACACAGTT CTTGGCCCAG GAGTGCAAGT
1081 GACTGAACCA GACACCCACA AGCTTCCATA CCTTCAGGCT GTGATCAAGG AGACGCTTCG
1141 TCTCCGTATG GCAATTCCTC TATTAGTCCC ACACATGAAC CTTACAGATG CAAAGCTTGG
1201 CGGGTTTGAT ATTCCAGCAG AGAGCAAAAT CTTGGTTAAC GCTTGGTGGC TAGCTAACAA
1261 CCCGGCTCAT TGGAAGAAAC CCGAAGAGTT CAGACCCGAG AGGTTCTTCG AAGAGGAGAA
1321 GCACGTTGAG GCCAATGGCA ATGACTTCAG ATATCTTCCG TTTGGCGTTG GTAGGAGGAG
1381 TTGCCCTGGA ACTATACTTG CATTGCCAAT TCTTGGCATT ACTTTGGGAC GTTT

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SEQ. ID. NO. 282

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1 MDLLLLLEKTL IGLFFAILIA VIVSRLRSKR FKLPPGPIPV PVFGNWLQVG DDLNHRNLTD
61 FAKKFGDLFL LRMGQRNLVV VSSPELAKEV LHTQGVFEFGS RTRNVVFDIF TGKGQDMVFT
121 VYGEHWRKMR RIMTVPFFTN KVVQYRGGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNNMFRIM FDRRFESDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPFLRGYLG
241 ICKEVKEKRL QLFKDYFVDE RKKLSNTKSL DSNALKCAID HILEAQQKGE INEDNVLYIV
301 ENINVAAIET TLWSIEWGIA ELVNHPHIQK KLRDEIDTVL GPGVQVTEPD THKLPLYLQAV
361 IKETLRLRMA IPLLVPHMNL HDAKLGGFDI PAESKILVNA WWLANNPAHW KKPEEFRPER
421 FFEEKHVEA NGNDFRYLPF GVGRRSCPGT ILALPILGIT LGR

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FIG. 142

NAME D136-AD5
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 283

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1 CCAAATTAGA GCAAGAAATT AACAAGTCTA GTTACCTTCT CCCTTTTTTAA GAGTATTTAA
61 GATTTAAGAT TTAAGATGAA GCAACTGAGG TAAGTCCTTT CAAGGAGTAG TTGTCACCTC
121 TGAGAATGGA GATGATGTAC AGCATAATAG CAGCAGCCAG TATTGCAATT ATCTTGGTAT
181 ATACATGGAA AGTGTTGAAT TGGGCTTGGT TTGGGCCAAA GAAAATGGAG AAATGCTTAA
241 GACAGAGGGG TCTCAAGGGA AATCCTTATA AGCTACTCTA TGGAGATCTA AACGAACTGA
301 CAAAAAGCAT AATAGAAGCC AAGTCTAAGC CCATCAATTT CTCTGATGAT ATTGCTCAAA
361 GGCTCATCCC TTTTTTCTT GACGCCATCA ACAAAAATGG TAAAAACTCC TTCGTCTGGC
421 TTGGACCGTA TCCAATAGTG TTGATCACGG ATCCTGAGCA TTTAAAGGAG ATTTTCACAA
481 AGAATTATGT GTATCAAAAG CAAACTCATC CCAATCCATA CGCCAAGCTA TTAGCTCACG
541 GTCTTGTCAG CCTTGAGGAA GACAAATGGG CCAAACACAG AAAAATCATT AGTCCTGCCT
601 TCCATGTCTGA GAAGCTAAAG CATATGCTGC CTGCATTTTA TCTGAGTTGT AGTGAAATGA
661 TAAGCAAATG GGAGGAGGTT GTTCCAAAAG AAACATCATT CGAGCTCGAT GTATGGCCAG
721 ACCTTCAAAT AATGACCAGT GAAGTCATTT CTCGCACTGC ATTTGGGAGT AGCTATGAAG
781 AAGGAAGAAT AGTATTTGAA CTTCAGAAAG AACAAAGCTGA GTATGTAATG GACATAGGAC
841 GTTCAATTTA TATACCAGGA TCAAGGTTCT TGCCTACTAA AAGGAACAAA AGAATGCTGG
901 AAATTGAAAA GCAAGTGCAA ACAACAATTA GGCCTATCAT CGACAAAAGA TTGAAGGCAA
961 TGGAAGAAGG GGAGACTAGT AAAGATGACT TATTAGGCAT ATTACTTGAA TCCAATTTGA
1021 AAGAAATTGA ACTTCATGGA AGAAATGACT TGGGAATAAC AACATCAGAA GTGATTGAAG
1081 AGTGCAAAGT AATCTATTTT GCCGGCCAAG AGACCACTTC AGTGTTGCTT GTTTGGACAA
1141 TGATTTTGTT GTGCTTACAT CCAGAGTGGC AAGTACGTGC CAGAAAGGAA GTGTTGCAGA
1201 CCTTTGGAAA TGATAAACCA GATTTGGAAG GACTAAGTCG CTTGAAAATT GTAACAATGA
1261 TCTTGACGA GACGTTACGC CTATTCCCCC CATTACCAGC ATTTGGTAGA AGGAACAAAG
1321 AAGAAGTCAA ATTAGGGGAG CTACATCTAC CGGCTGGAGT GTTACTCGTT ATACCAGCAA
1381 TCTTAGTACA TTATGATAAG GAAATATGGG GTGAAGATGC AAAGGAATTC AAACCAGAAA
1441 GATTCACTGA AGGAGTGTCA AAGGCAACAA ATGGACAAGT CTCATTTATA CCATTTAGCT
1501 AGGGACCTCG TGTTTGCAAT GGACAAAAC TCGCAATGAT GGAAGCAAAA ATGGCAGTAA
1561 CTATGATACT ACAAAAATTC TCCTTTGAAC TATCCCCTTC TTATACACAT GCTCCATTTG
1621 CAATTGTGAC TATTCATCCC CAGTATGGTG CTCCTCTGCT TATGCGCAGA CTTTAAACA
1681 TATGTTGCTG ATATTTAAGA TCAGTGGCGT TTTATTCTCC ATG

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SEQ. ID. NO. 284

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1 MEMMYSIIAA ASIAIILVYT WKVLNWAUFG PKKMEKCLRQ RGLKGNPYKL LYGDLNELTK
61 SIIEAKSKPI NFSDDIAQRL IPFFLDANK NGKNSFWLW PYPIVLITDP EHLKEIFTKN
121 VVYQKQTHPN PYAKLLAHGL VSLEEDKWAK HRKIISPAFH VEKLKHLPA FYLSCSEMIS
181 KWEEVVPKET SFELDVWPD LQIMTSEVIS TAFGSSYEEG RIVFELQKEQ AEYVMDIGRS
241 IYIPGSRFLP TKRNRMLLEI EKQVQTTIRR IIDKRLKAME EGESKDDLL GILLESNLKE
301 IELHGRNDLG ITTSEVIEEC KLIYFAGQET TSVLLVWTMI LLCLHPEWQV RARKEVLQTF
361 GNDKPDLEGL SRLKIVTMIL YETLRLFPPL PAFGRRNKEE VKLGELHLPA GVLLVIPAIL
421 VHYDKEIWGE DAKEFKPERF SEGVSKATNG QVSFIPFS

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FIG. 143

NAME D138-AD12
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 285

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1 TTTGCCTTTG CTCGTCATTG ATGACGACTT CATTTTGT TT TCTTCCCAC GAAAATGGTA
61 GATATGATAT GGAGGGACGT AGGGAAGAAT TACTGGGACA AACCTAGTGA GTGAAAATGG
121 AAACAGTTGA AATGATAGTA AAAGTATCTT GTGCTGCCAT AGTAATTACT CTGTTGGTGT
181 GTCTATGGAG AGTGCTGAAT TGGGTTTGGT TCAGACCAAA GAAATTAGAG AAGTTGTTGA
241 GAAAACAGGT TTTGTATGGG GACATGAAAG AGTTTTCTGG GATGATTAAG GAAGCATACT
301 CAAAGCCTAT GAGTCTGTCT GATGATGTAG CACCACGAAT GATGCCTTTC TTTCTTGAAA
361 CCATCAAGAA ATATGGAAAA AGATCCTTTA TATGGTTCGG TCCAAGACCA CTAGTATTGA
421 TCATGGATCC TGAGCTTATA AAGGAAGTAC TCTCCAAAAT CTATCTTTAT CAAAAGCCCG
481 GTGGAAATCC ATTAGCAACA CTATTGGTAC AAGGATTAGC AACCTATGAG GAAGACAAAT
541 GGGCCAAACA TAGAAAAATC ATCAATCCCG CTTTCCATCT AGAGAAGCTA AAGCATATGC
601 TTCCAGCTTT TCGCTTGAGC TGTAGTGAGA TGCTGAGCAA ATGGGAAGAC ATTGTTTCAG
661 CTGAAGGCTC ACATGAGATA GATGTATGGC CTAACCTTGA GCAATTGAGT TGCGATGTGA
721 TCTCTCGGAC AGCTTTTGGC AATAGTTATG AAGAAGGTAG AAAGATTTTT GAACTTCAAA
781 AGGAACAAAC TCAGCATCTT GTGGAAGCTT TCCGCTCTGT TTATATCCCA GGAAGGAGAT
841 TTTTGCCAAC AAAGAGGAAT AGAAGAATGA AGGAAATAAA AAAGGAGGTT CGAGCGTCAA
901 TTAAAGGTAT TATTGATAAA AGATTGAAGG CAATGAAAGC AGGGGACACC AATAATGAGG
961 ATCTATTGGG ATATTGCTGG AATCAAATTT TAAAGAAATT GAACAGCGCG GAAACAAGGA
1021 TTTTGGGAATG AGCATTGAAG ATGTCATTGA AGAATGCAAG TTATTCTATT TTGCTGGCCA
1081 AGAAACTACA TCAGTGTTGC TCCTATGGTC TCTAGTGTCTG TTGAGCAGGT ATCAAGATTG
1141 GCAGACACGG GCCAGAGAAG AAGTCTTGCA TGTCTTTGGG AGTCGGAAAC CAGATTTTGA
1201 TGAATTAAAT CATCTAAAAG TTGTGACAAT GATCATGTAC GAGTCTTTAA GGCTATATCC
1261 CTCCTAATA AACTTACCC GCCGGTGTA TGAAGACATT GTATTAGGAG AACTATCTCT
1321 ACCAGCTGGT GTCCTAGTCT CTTTGCCAAT GATTTTGTTG CATCATGATG AAGAGATATG
1381 GGGTGAAGAT GCAAAGGAGT TCAAACCAGA GAGATTTAGA GAAGGATTGT CAAGTGCAAC
1441 AAAGGGTCAA CTTACATATT TTCCATTTGG CTGGGGTCCT AGAATATGTA TTGGACAAAA
1501 TTTTGCCATG TTAGAAGCAA AGATGGCTCT GTCTATGATC CTGCAACGCT TCTCTTTTGA
1561 ACTGTCTCCG TCTTATGCAC ATGCCCTCA GTCCATATTA ACCGTTTCACT CAATATGG
1621 TGCTCCACTT ATTTTCCACA AGCTATAATT TGGTACTTGT GAAAGGTGTC TTGTACAATA
1681 TGTTAGTAGA GTTTATTTCAG ACTTAGATAC ATGCTTC

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SEQ. ID. NO. 286

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1 METVEMIVKV SCAAIVITLL VCLWRVLNVW WFRPKKLEKL LRKQVLYGDM KEFSGMIKEA
61 YSKPMSLSDD VAPRMPFFL ETIKKYGKRS FIWFGPRPLV LIMDP ELIKE VLSKIYLYQK
121 PGGNPLATLL VQGLATYEED KWAKHRKIIN PAFHLEKLKH MLPAFRLSCS EMLSKWEDIV
181 SAECSHEIDV WPNLEQLSCD VISRTAFGNS YEEGRKIFEL QKEQTQHLVE AFRSVYIPGR
241 RFLPTKRNR MKEIKKEVRA SIKGIIDKRL KAMKAGDTNN EDLLGYCWNQ ILKKLNSAET
301 RILE

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FIG. 144

NAME D216-AG8
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 287

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1 CCAAAATGCA GTTCTTCAAC TTCATTTCTT TTGTCTTTT TGTGCTTTC CTCTTTTAT
61 TAAGGAAATG GAAGAACTCC AATAGCCAAA CCAAAAGATT GCCTCCAGGT CCATGGAAAT
121 TACCTGTACT TGGAAGCATG TTTCATTTGC TAGGTGGACC TCCACATCAT GTCCTTGGAG
181 ATTTAGCCAA AAAATATGGT CCACTTATGC ACCTTCAACT AGGTGAAGTT TCTGTAGTTT
241 CTGTTACTTC TCCTGAGATG GCAAAAGAAG TACTAAAAAC TCATGACCTC GCTTTTGCAT
301 CTAGGCCGTT ACTTTTGGCA GCCAAAATTG TCTGCTATAA TGGGACAGAC ATTGTCTTTT
361 CCCCCTATGG CGATTATTGG AGACAAACGC GTAAAATTTG TCTCTTGGAA TTGCTCAGTG
421 CCAAAAATGT TAGGTCATTC AGCTCAGTCA GACGAGATGA AGTTTCCAT ATGATTGAAT
481 TTTTTTCGAT CATCTTCTGG TAAGCCAGTT AATGTATCAA AAAGGATTTC TCTATTCACA
541 ACCTCTATGA CATGTAGATC AGCCTTTGGA CAAGAATACA AGGAGCAAGA CGAATTCGCA
601 CAACTAGTAA AAAAAGTGTC AAGCTTAATG GAAGGGTTTG ATGTTGCTGA TATATTCCCT
661 TCATTGAAGT TTCTTCATGT GCTCAGTGGA ATGAAGGCTA AAGTTATGGA TGCACACCAT
721 GAGTTAGATG CCATTCTTGA AAAAATTATC AATGAGCACA AGAAAATTGC AACTGGAAAG
781 AATAATAATG AATTAGGAGG TGAAGGATTA ATTGACGTAC TGCTAAGACT TATGAAAGAG
841 GGAGGCCCTT AATTCCCGAT CACCAACGAC AACATCAAAG CTATTATTTT TGACATGTTT
901 GGTGCGGGAA CGGAAACTTC ATCAACCACA ATTGACTGGG CCATGGTCGA AATGATAAAG
961 AATCCAAGTG TATTCGCTAA AGCTCAAGCA GAGGTAAGAG AAGCCTTCAG AGAGAAAGAA
1021 ACTTTTGATG AAAATGATGT CGAGGAGTTG AAATACTTAA AATTGGTTAT CAAAGAAACT
1081 TTCAGACTCC ATCCTCCATT TCCCCTTTTG CTCCAAGAG AATCTAGAGA AGAAACAGAT
1141 ATAAACGGCT ACACTATTCC TTTTAAAACA AAACCTTATG TTAACGTTCC GGCTATTGGA
1201 AGAGATCCAA AATATTGGGA TGACGTGGAA AGTTTAAAGC CAGAGAGATT TGAGCACAAC
1261 TCTATGGATT TTATTGGTAA TAATTTTGAA TATCTTCCCT TTGGTAGTGG AAGGAGAATG
1321 TGCCCTGGGA TATCATTTGG TTTGGCTAAT GTTTATTTGC CACTAGCTCA ATTGTTATAT
1381 CATTTTGATT GGAAACTCCC TACTGGAATC AATTCAAGTG ACTTGGACAT GACTGAGTCG
1441 TCAGGAGTAA CTTGTGCTAG AAAGAGTGAT TTATACTTGA CTGCTACTCC ATATCAACTT
1501 TCTCAAGAGT GATGCAATGA TATCAACCTT TTGAATTTTC GTCAACCCCA CCAATAGTG

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SEQ. ID. NO. 288

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1 MQFFNFISFV FFVSFLFLLR KWKNSNSQTK RLPPGPWKLP VLGSMEHLLG GPPHHVLGDL
61 AKKYGPLMHL QLGEVSVVSV TSPMAKEVL KTHDLAFASR PLLLAAKIVC YNGTDIVFSP
121 YGDYWRQTRK ICLLELLSAK NVRSFSSVRR DEVFHMIEFF SIIFW

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FIG. 145

NAME D243-AB3
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 289

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1  CCCCACCAAA AAATCATTTTCTCTCGTCTAA AATGGATCTT CTCTTACTAG AGAAGACCTT
61 AATTGGTCTT TTCTTTGCCA TTTTAATCGC TTTAATTGTC TCTAAACTTC GTTCAAAGCG
121 TTTTAAGCTT CCTCCAGGAC CAATTCCAGT ACCAGTTTTT GGTAATTGGC TTCAAGTTGG
181 TGATGATTTA AACCACAGAA ATCTTACTGA TTATGCCAAG AAATTTGGAG ATCTTTTCTT
241 GTTAAGAATG GGTCAACGTA ACTTAGTTGT TGTGTCATCT CCTGAATTAG CTAAAGAAGT
301 TTTACACACA CAAGGTGTTG AATTTGGTTC AAGAACAAGA AATGTTGTGT TTGATATTTT
361 TACTGGAAAA GGTCAAGATA TGGTTTTTAC TGTATATGGT GAACATTGGA GAAAAATGAG
421 GAGAATTATG ACTGTACCAT TTTTACTAA TAAAGTTGTG CAACAGTATA GAGGGGGGTG
481 GGAGTTTGAG GTGGCAAGTG TAATTGAGGA TGTGAAAAAA AATCCTGAAT CTGCTACTAA
541 TGGGATCGTA TTAAGGAGGA GATTACAATT AATGATGTAT AATAATATGT TTAGGATTAT
601 GTTTGATAGG AGATTTGAGA GTGAAGATGA TCCTTTGTTT GTTAAGCTTA AGGCTTTGAA
661 TGGTGAAAGG AGTAGATTGG CTCAAAGTTT TGAGTATAAT TATGGTGATT TTATTCCAAT
721 TTTGAGGCCT TTTTGTGAGA GGTTATTTGA AGATCTGTAA AGAAGTTAAG GAGAAGAGGC
781 TGCAGCTTTT CAAAGATTAC TTTGTTGATG AAAGAAAGAA GCTTTCGAAT ACCAAGAGCT
841 CGGACAGCAA TGCCCTAAAA TGTGCGATTG ATCACATTCT TGAGGCTCAA CAGAAGGGAG
901 AGATCAATGA GGACAACGTT CTTTACATTG TTGAAAACAT CAATGTTGCT GCAATTGAAA
961 CAACATTATG GTCAATTGAG TGGGGTATCG CCGAGCTAGT CAACCACCCT CACATCCAAA
1021 AGAAACTGCG CGACGAGATT GACACAGTTC TTGGACCAGG AGTGCAAGTG ACTGAACCAG
1081 ACACCCACAA GCTTCCATAC CTTCAGGCTG TGATCAAGGA GGCATTTCGT CTCCGTATGG
1141 CAATTCCTCT ATTAGTCCCA CACATGAACC TTCACGACGC AAAGCTTGGC GGGTTTGATA
1201 TTCCAGCAGA GAGCAAAATC TTGGTTAACG CTTGGTGGTT AGCTAACAA CCGGCTCATT
1261 GGAAGAAACC CGAAGAGTTC AGACCCGAGA GGTTCCTTGA AGAGGAGAAG CATGTTGAGG
1321 CCAATGGCAA TGACTTCAGA TATCTTCCGT TTGGCGTTGG TAGGAGGAGC TGCCCTGGAA
1381 TTATACTTGC ATTGCCAACT CTTGGCATCA CTTTGGGACG TTTGGTTTCA AACTTTGAGC
1441 TGTGCTCTCC TCCAGGCCAG TCGAAGCTCG ACACCACAGA GAAAGGTGGA CAGTTCAGTC
1501 TCCACATTTT GAAGCATTCC ACCATTGTGT TGAAACCAAG GTCTTTCTGA ACTTTGTGAT
1561 CTTATTAATT AAGGGGTTCT GAAGAAATTT GATAGTGTTG G

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SEQ. ID. NO. 290

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1  MDLLLLLEKTL IGLFFAILIA LIVSKLRSKR FKLPPGPIPV PVFGNWLQVG DDLNHRNLTD
61 YAKKFGDLFL LRMGQRNLVV VSSPELAKEV LHTQGVFEGS RTRNVVFDIF TGKGQDMVFT
121 VYGEHWRKMR RIMTVPFFTN KVVQYRGGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNNMFRIM FDRRFESDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPFFERLFE
241 DL

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FIG. 146

NAME D250-AC11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 291

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1 ATAATGCTCT TTCTACTCTT TGTAGCCCTT CCTTTCATTC TTATTTTTCT TCTTCCTAAA
61 TTCAAAAATG GTGGAAATAA CAGATTGCCA CCAGGTCCTA TAGGTTTACC ATTCATTGGA
121 AATTTGCATC AATATGATAG TATAACTCCT CATATCTATT TTTGGAAACT TTCCAAAAAA
181 TATGGCAAAA TCTTCTCATT AAAACTTGCT TCTACTAATG TGGTAGTAGT TTCTTCAGCA
241 AAATTAGCAA AAGAAGTATT GAAAAACAA GATTTAATAT TTTGTAGTAG ACCATCTATT
301 CTTGGCCAAC AAAAAGTATG TTATTATGGT CGTGATATTG CTTTTGCACC TTATAATGAT
361 TATTGGAGAG AAATGAGAAA AATTTGTGTT CTTTCATCTTT TTAGTTTAAA AAAAGTTCAA
421 TTATTTAGTC CAATTCGTGA AGATGAAGTT TTTAGAATGA TTAAGAAAAT ATCAAAACAA
481 GCTTCTACTT CACAAATTAT TAATTTGAGT AATTTAATGA TTTCATTAAAC AAGTACAATT
541 ATTTGTAGAG TTGCTTTTGG TGTTAGGTTT GAAGAAGAAG CACATGCAAG GAAGAGATTT
601 GATTTTCTTT TGGCCGAGGC ACAAGAAATG ATGGCTAGTT TCTTTGTATC TGATTTTTTT
661 CCCTTTTTTAA GTTAGATTGA CAAATTAAGT GGATTGACAT ATAGACTTGA GAGGAATTTT
721 AAGGATTTGG ATAATTTTTA TGAAGAACTC ATTGAGCAAC ATCAAAATCC TAATAAGCCA
781 AAATATATGG AAGGAGATAT TGTTGATCTT TTGCTACAAT TGAAGAAAGA GAAATTAACA
841 CCACTTGATC TCACTATGGA AGATATAAAA GGAATTCTCA TGAATGTGTT AGTTGCAGGA
901 TCAGACACTA GTGCAGCTGC TACTGTTTGG GCAATGACAG CCTTGATAAA GAATCCTAAA
961 GCCATGGAAA AAGTTCAATT AGAAATCAGA AAATCAGTTG GGAAGAAAGG CATTGTAAAT
1021 GAAGAAGATG TCCAAAACAT CCCTTATTTT AAAGCAGTGA TAAAGGAAAT ATTTAGATTG
1081 TATCCACCAG CTCCACTTTT AGTTCCAAGA GAATCAATGG AAAAAACCAT ATTAGAAGGT
1141 TATGAAATTC GGCCAAGAAC CATAGTTCAT GTTAACGCTT GGGCTATAGC AAGGGATCCT
1201 GAAATATGGG AAAATCCAGA TGAATTTATA CCTGAGAGAT TTTTGAATAG CAGTATCGAT
1261 TACAAGGGTC AAGATTTTGA GTTACTTCCA TTTGGTGCAG GCAGAAGAGG TTGCCCAGGT
1321 ATTGCACTTG GGGTTGCATC CATGGAACCT GCTTTGTCAA ATCTTCTTTA TGCATTTGAT
1381 TGGGAGTTGC CTTATGGAGT GAAAAAGAA GACATCGACA CAAACGTTAG GCCTGGAATT
1441 GCCATGCACA AGAAAAACGA ACTTTGCCTT GTCCCAAAAA AATTATTTAT AAATTATATT
1501 GGGACGTGGA TCTCATGCTA GTTCTGTGCG GTCAGCTAAG CTTA

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SEQ. ID. NO. 292

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1 MLFLLFVALP FILIFLLPKF KNNGNNRLPP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSLKLAS TNVVVVSSAK LAKEVLKKQD LIFCSRPSIL GQQKLSYYGR DIAFAPYNDY
121 WREMRKICVL HLFSLKKVQL FSPIREDEVF RMIKKISKQA STSQIINLSN LMISLTSTII
181 CRVAFGVRFE EEAHARKRFD FLLAEAQEMM ASFFVSDFFP FLS.IDKLSG LTYRLERNFK
241 DLDNFYEELI EQHQNPKNPK YMEGDIVDLL LQLKKEKLTP LDLTMEDIKG ILMNVLVAGS
301 DTSAAATVWA MTALIKNPKA MEKVQLEIRK SVGKKGIVNE EDVQNIPIYFK AVIKEIFRLY
361 PPAPLLVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPE IWENPDEFIP ERFLNSSIDY
421 KGQDFELLFP GAGRRGCPGI ALGVASMELA LSNLLYAFDW ELPYGVKKED IDTNVRPGIA
481 MHKKNELCLV PKKLFINYIG TWISC

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FIG. 147

NAME D205-AH4
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 293

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1 GTGAGGTTTG AATCCTCTGC CTCAATGAAA CTCACCAAAT TGGTTTTCTA ATTTCCATCT
61 AAAATATTGT CCAAAGCTAA AGATTCTTTC TCCTTAAATA GTCAACTTTA GTGGTTCCTC
121 TTCATTTTCAT AGCTCAATCT TTCTTATTTT GATTCAACCA TGGAGAACCA ATACTCCTAC
181 TCATTCTCTT CCTACTTCTA CTTAGCTATA GTACTGTTTC TTCTTCCAAT TTTGGTCAAA
241 TATTTCTTCC ATCGGAGAAG AAATTTACCT CCAAGTCCAT TTTCTCTTCC AATAATTGGT
301 CACCTTTACC TTCTCAAGAA AACTCTCCAT CTCACTCTAA CATCCTTATC AGCTAAATAT
361 GGTCTGTGTT TATACCTCAA ATTTGGGCTCT ATGCCTGTGA TTGTTGTGTC CTCACCATCT
421 GCTGTTGAAG AATGTTTAAAC CAAGAATGAT ATCATATTTC CAAATAGGCC CAAGACCGTG
481 GCTGGTGACA AGTTTACCTA CAATTATACT GTTTATGTTT GGGCACCTTA TGGCCAACTT
541 TGGAGAATTC TTCGCCGATT AACTGTCGTT GAACCTTTCT CTTCACATAG CCTACAGAAA
601 ACTTCTATCC TTAGAGATCA AGAAGTTGCA ATATTTATCC GTTCGTTATA CAAATTCTCA
661 AAGGATAGTA GCAAAAAAGT CGATTTGACC AACTGGTCTT TTAATTTGGT TTTCAATCTT
721 ATGACCAAAA TTATTGCTGG GAGACATATT GTGAAGGAGG AAGATGCTGG CAAGGAAAAG
781 GGCATTGAAA TTATTGAAAA ACTTAGAGGG ACTTTCTTAG TAACTACATC ATTCTTGAAT
841 ATGTGTGATT TCTTGCCAGT ATTCAGGTGG GTTGGTTACA AAGGGCTGGA GAAGAAGATG
901 GCCTCAATTC ACAATAGAAG AAATGAATTC TTGAACAGCT TGCTTGATGA ATTTTCGACAC
961 AAGAAAAGTA GTGCTTCACA ATCTAACACA ACTGTTGGAA ACATGGAGAA GAAAACCACA
1021 CTGATTGAAA AGCTCTTGTC TCTTCAAGAA TCAGAGCCTG AATTCTACAC TGATGATATC
1081 ATCAAAAAGTA TTATGCTGGT AGTTTTTGTT GCAGGAACAG AGACCTCATC AACAACCATC
1141 CAATGGGTAA TGAGGCTTCT TGTAGCTCAC CCTGAGGCAT TGTATAAGCT ACGAGCTGAC
1201 ATTGACAGTA AAGTTGGGAA TAAGCGCTTG CTGAATGAAT CAGACCTCAA CAAGCTTCCG
1261 TATTTGCATT GTGTTGTTAA TGAGACAATG AGATTATACA CTCCGATACC ACTTTTATTG
1321 CCTCATTTAT CAACTAAAAG TTGTATTGTG GAAGGATATG ATGTACCAAA ACATACAATG
1381 TTGTTTGTCA ACGCTTGGGC CATTACAGAG GATCCCAAGG TATGGGAGGA GCCTGACAAG
1441 TTCAAGCCAG AGAGATTTGA GGCAACAGAA GGGGAAACAG AAAGGTTCAA TTACAAGCTT
1501 GTACCATTTG GAATGGGGAG AAGAGCGTGC CCTGGAGCTG ATATGGGGTT GCGAGCAGTT
1561 TCTTTGGCAT TAGGTGCACT TATTCAATGC TTTGACTGGC AAATTGAGGA AGCGGAAAGC
1621 TTGGAGGAAA GCTATAATTC TAGAATGACT ATGCAGAAAC AGCCTTTGAA GGTGTGTCTG
1681 ACTCCACGCG AAGATCTTGG CCAGCTTCTA TCCCAACTCT AAGGCAATTT ATCAATGCCA
1741 AACGTAATCT TCATCTACCA CTATG

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SEQ. ID. NO. 294

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1 MENQSYSFS SYFYLAIVLF LLPILVKYFF HRRRNLPSP FSLPIIGHLY LLKKTLLHLTL
61 TSLSAKYGPV LYLKLGSMPLV IVVSSPSAVE ECLTKNDIIF ANRPKTVAGD KFTYNYTVYV
121 WAPYQGLWRI LRRLTVVELF SSHSLQKTSI LRDQEVAFI RSLYKFSKDS SKKVDLTNWS
181 FTLVFNLMTK IIAGRHIKVE EDAGKEKGIE IIEKLRGTFL VTTSFLNMCD FLPVFRWVG
241 KGLEKKMASI HNRNNEFLNS LLDEFRRHKS SASQSNTTVG NMEKKTLLIE KLLSLQSESEP
301 EFYTDIIKS IMLVVFVAGT ETSSTTIQWV MRLLVAHPEA LYKLRADIDS KVGKNRLLNE
361 SDLNKLPYLH CUVNETMRLY TPIPLLLPHY STKDCIVEGY DVPKHTMLFV NAWAIHRDPK
421 VWEPPDKFKP ERFEATEGET ERFNYKLVFP GMGRRACPGA DMGLRAVSLA LGALIQCQFDW
481 QIEEAESLEE SYNSRMTMQN KPLKVVCTPR EDLGQLLSQL

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FIG. 148

NAME D267-AF10
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 295

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1 AACATCCTTT CTTCTTCCA AAAATGGAGC TTCAATCTTC TCCTTTCAAT TTAATTTCTT
61 TGTTCTCTT CTTTTCTTTT CTTTTTATTC TAGTGAAGAA ATGGAATGCC AAAATCCCAA
121 AGTTACCTCC AGGTCCGTGG AGGCTTCCCT TTATTGGAAG CCTCCATCAC TTGAAGGGAA
181 AACTTCCACA CCATAATCTT AGAGATCTAG CGCGAAAATA TGGACCTCTC ATGTACTTAC
241 AACTCGGAGA AATTCTGTG GTTGTAATAT CTTGCCACG TGTAGCAAAA GCTGTACTAA
301 AAACATCATGA TCTCGCTTTT GCAACTAGAC CACGATTCAT GTCCTCAGAC ATTGTGTTTT
361 ACAAAGCAG GGACATCTCT TTTGCCCAT TTGGTGATTA CTGGAGACAG ATGCGTAAAA
421 TATTGACTCA GGAACCTCTG AGCAACAAGA TGCTCAAGTC ATATAGCTTA ATCCGAAAGG
481 ATGAGCTCTC GAAGCTCCTC TCATCGATTC GTTTGGAAAC AGGTCTGCA GTGAACATAA
541 ATGAAAAGCT TCTCTGGTTT ACGAGCTGCA TGACCTGTAG ATTAGCCTTT GGAAAAATAT
601 GCAATGATCG GGATGAGTTG ATCATGCTAA TTAGGGAGAT ATTAACATTA TCAGGAGGAT
661 TTGATGTGGG TGATTTGTTC CTTCTCTGGA AATTACTTCA TAATATGAGC AACATGAAAG
721 CTAGGTTGAC GAATGTACAC CACAAGTATG ATTTAGTTAT GGAGAACATC ATCAATGAGC
781 ACCAAGAGAA TCATGCAGCA GGGATAAAGG GTAACAACGA GTTTGGTGGC GAAGATATGA
841 TCGATGCTCT ACTGAGGGCT AAGGAGAATA ATGAGCTTCA ATTTCTATC GAAAAATGACA
901 ACATGAAAGC AGTAATTCTG GACTTGTTTA TTGCTGGAAC TGAACCTTCA TATACTGCAA
961 TTATATGGGC ACTATCAGAA TTGATGAAGC ACCCAAGTGT GATGGCCAAG GCACAAGCTG
1021 AAGTGAGAAA AGTCTTCAAA GAAAATGAAA ATTTGACGA AAATGATCTT GACAAGTTGC
1081 CATACCTAAA ATCAGTGATT AAAGAAACAC TAAGGATGCA CCCTCCAGTT CCTTTGTTAG
1141 GGCCTAGAGA ATGCAGGGAC CAAACAGAGA TCGATGGCTA CACTGTACCT ATTAAAGCTA
1201 GAGTTATGGT TAATGCTTGG GCGATAGGAA GAGATCCTGA AAGTTGGGAA GATCCTGAAA
1261 GTTTCAAACC GGAGCGATTT GAAAATACTT CTGTTGATCT TACAGGAAAT CACTATCAGT
1321 TCATTCCTTT CGGTTTCAAGG AGAAGAATGT GTCCAGGAAT GTCGTTTGGT TTAGTTAACA
1381 CAGGGCATCC TTTAGCCCAG TTGCTCTATT GCTTTGACTG GAAACTCCCT GACAAGGTTA
1441 ATGCAAATGA TTTTCGCACT ACTGAAACAA GTAGAGTTTT TGCAGCAAGC AAAGATGACC
1501 TCTACTTGAT TCCCACAAAT CACAGGGAGC AAGAATAGCT TAATTTAATG GAGTTCTTGG
1561 AAGAATTAAG GAAGAAGGGC TATATAGGTG AGATTTTTTG TATGGTTGCA AGGTTTTTAG
1621 TTCATACAAT AAGACAATAC ATTATATTCC AGTATTGTGT ATCATGTATA ATAAGGTTCC
1681 TTTTGTTTAA AAAA

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SEQ. ID. NO. 296

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1 MELQSSPFNL ISLFLFFSFL FILVKKWNAK IPKLPPGPWR LPFIGSLHHL KGKLPHHNLR
61 DLARKYGPLM YLQLGEIPVV VISSPRVAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APFGDYWRQM RKILTQELLS NKMLKSYSLL RKDELSKLLS SIRLETGSVA NINEKLLWFT
181 SCMTCRLAFG KICNDRDELI MLIREILTLS GGFDVGDLPF SWKLLHNMSN MKARLTNVHH
241 KYDLVMENII NEHQENHAAG IKGNNEFGGE DMIDALLRAK ENNELQFPPIE NDNMKAVILD
301 LFIAGTETSY TAIIWALSEL MKHPSVMAKA QAEVRKVFKE NENFDENDLD KLPYLKSVIK
361 ETLRMHPPVP LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE
421 NTSVDLTGNH YQFIFPGSGR RMCPGMSFGL VNTGHPLAQL LYCFDWKLPD KVNANDFRTT
481 ETSRVFAASK DDLYLIPTNH REQE

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FIG. 149

NAME D284-AH5
 ORGANISM NICOTIANA TABACUM
 SEQ. ID. NO. 297

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1 CAATCAGTGG ATGCGGGAGT AATATATAAT ATGCAAGTTG TAGAAAGAGA AAAAAAAAT
61 CAAGTAGCTA TTCTATACTG GGGCACAAAT AGTGAGTGAA AATGGAGACT GTTCAAATCA
121 TAATAACAGC ATCTTGTGCT GCCATAATAA TTA CTCTAGT GGTGTGTATT TGGAGAGTAC
181 TGAATTGGGT TTGGTTCAGA CCAAAGAAGC TGGAAAACT ATTGAGGAAA CAAGGTCTCA
241 AAGGCAACTC CTACAAGATT TTGTATGGGG ATATGAAGGA GCTTTCTGGT ATGATTAAGG
301 AAGCTAATTC CAAACCCATG AATCTTTCTG ATGATATTGC ACCAAGATTG GTGCCTTTCT
361 TTCTTGACAC CATCAAGAAA TATGGTAAAA AATCCTTTGT ATGGTTAGGT CCGAAACCAC
421 TGGTTCCTAT CATGGACCCT GAGCTTATAA AGGAAATATT TTCCAAATAC TATCTGTATC
481 AAAAGCCTCA TGGAAATCCA GTTACCAAGC TATTAGTACA AGGACTAGTA AGCCTAGAGG
541 AAGACAAATG GGCCAAACAT AGAAAAATCA TCAATCCAGC TTTCCATCTA GAGAAGCTAA
601 AGCATATGCT TCCAGCTTTT TGCTTGAGCT GCACTGAGAT GCTGTGCAAA TGGGAAGATA
661 TTGTTTCAAT TAAGGGCTCA CATGAGATAG ATGTATGGCC TCACCTTGAA CAATTAAGTA
721 GCGATGTGAT CTCTCGGACA GCTTTTGGCA GTAACCTTGA AGAAGGTAAA AGGATATTTG
781 AACTTCAGAA GGAACAAGCT CAGTATTTTG TAGAAGCTAT ACGCTCGGTT TATATACCAG
841 GCTGGAGGTT TTTGCCAACA AAGAGGAACA GAAGAATGAA GGAAGTTGAA AAGGATGTTT
901 GGGCCTCGAT AAGAGGCATT ATTGATAAAA GAGTGAAGGC AATGAAAGCA GGAGAGGCGA
961 GTAATGAGGA TCTACTTGGT ATATTGTTGG AATCTAATTT TACAGAAGCT GAACAGCATA
1021 GACACAAGGA TTCTGCGATG AGCATTGAAG AAGTCATTCA AGAATGCAAG TTATTCTATG
1081 TTGCTGGCCA AGAAACTACA TCAGTGTTGC TTGTGTGGAC TCTAATATTG TTGAGTAGGC
1141 ATCAAGATTG GCAGAGCCGA GCCAGAGAAG AGGTGTTTCA AGTCTTTGGT AATCAGAAAC
1201 CAGATTTTGA CGGATTGAAT CGTCTAAAAG TTGTGACAAT GATCTTGTAT GAGTCTTTAA
1261 GGCTATACTC CCCAGTAGTG TCACTAATCC GCGGCCTAA TGAGGATGCT ATATTAGGAA
1321 ATGTATCTCT GCCAGAAGGT GTGCTACTCT CATTACCAGT GATCTTATTA CACCACGATG
1381 AAGAGATATG GGGTAAAGAT GCAAAGAAGT TCAATCCAGA AAGATTTAGA GATGGAGTCT
1441 CAAGTGCAAC AAAGGGTCAA GTCACCTTTT TTCCATTTAC TTGGGGTCCC AGAATATGCA
1501 TCGGACAAAA TTTTGCCATG TTAGAAGCAA AGACTGCTTT GGCTATGATC CTACAACGCT
1561 TCTCATTCGA ACTGTCTCCA TCTTATGCAC ATGCTCCTCA GTCCATATTA ACTATGCAAC
1621 CCCAACATGG TGCTCCACTA ATTCTGCACA AAATATAGTT TGTTACTTTA AGCAGTGTCT
1681 TGTTATATGT CAGAGAGTCC AAAATGTTTA ATTAAGGCTT GTAGAACTGC CAAATGGAAC
1741 TTCATTTGCA TTCGTGGGTT GTAGATTGTT GTAATTGGAC AAGTATACTG TTTATTTTAG
1801 AGTTTAAAGA AAAAAAAA

```

SEQ. ID. NO. 298

```

1 METVQIIITA SCAIIITLV VCIWRVLNVV WFRPKKLEKL LRKQGLKGNS YKILYGDMKE
61 LSGMIKEANS KPMNLSDDIA PRLVPFFLDI IKKYGKKSFV WLGPKPPLVLI MDP ELIKEIF
121 SKYYLYQKPH GNPVTKLLVQ GLVSLEEDKW AKHRKIINPA FHLEKLK HML PAFCLSCTEM
181 LCKWEDIVSI KGSHEIDVWP HLEQLSSDVI SRTAFGSNFE EGKRIFELQK EQAQYFVEAI
241 RSVYIPGWRF LPTKRNRMRK EVEKDVRASI RGIIDKRVKA MKAGEASNED LLGILLESNF
301 TEAEQHRHKD SAMSIEEVIQ ECKLFYVAGQ ETTSVLLVWT LILLSRQDW QSRAREEVFQ
361 VFGNQKPDFD GLNRLKVVTM ILYESLRLYS PVVSLIRRPN EDAILGNVSL PEGVLLSLPV
421 ILLHHDEEIW GKDAKKFNPE RFRDGVSSAT KGQVTFPPFT WGPRICIGQN FAMLEAKTAL
481 AMILQRFSE LSPSYAHAPQ SILTMQPQHG APLILHKI

```

Figure 150: Amino Acid Identity of Group Members

Group 1

AQLAINLVTSMLGHLLHHFTWAPAPGVNPEDIDLEESPGTVTYMKNPIQAIPTPRLPAHLYGRVPVDM	SEQ ID No.:2 D58-BG7
	(98.5)
AQLAINLVTSMLGHLLHHFTWAPPPGVNPENIDLEESPGTVTYMKNPIQAIPTPRLPAHLYGRVPVDM	SEQ ID No.:4 D58-AB1

Group 2

QLAINLVTSMLGHLFIILHGLRPRGLTRRILTWRRALEQ	SEQ ID No.:8 D58-BE4
---	----------------------

Group 3

EGLAVRMVALSLGCIIQCFDWQRIGEELVDMTEGTGLTLPKAQPLVAKCSPRPKMANLLSQI	SEQ ID No.:10 D56-AH7
	(93.5)
EGLAIRMVALSLGCIIQCFDWQRLGEGLVDKTEGTGLTLPKAQPLVAKCSPRPIMANLLSQI	SEQ ID No.:12 D13a-5

Group 4

IGFATLVTHLTFGRLLQGFDfsKPSNTPIDMTEGVGVTLPKVNQVEVLITPRLPSKLYLF	SEQ ID No.:14 D56-AG10
	(93.3)
INFATLVTHLTFGRLLQGFDfsTPSNTPIDMTEGVGVTLPKVNQVEVLISPRLPskLYVF	SEQ ID No.:18 D34-62

Group 5

IILALPILGITLGRLVQNFELLPPPGQSKLDTTEKGGQFSLHILKHSTIVLKPRSF	SEQ ID No.:20 D56-AA7
	(98.2)
IILALPILGITLGRLVQNFELLPPPGQSKLDTTEKGGQFSLHILKHSTIVMKPRSF	SEQ ID No.:144 D185-BD3
	(96.4)
IILALPILGITLGRLVQNFELLPPPGQSKLDTTEKGGQFSLHILKHSTIVLKPRSC	SEQ ID No.:22 D56-AE1

Group 6

IALGVASMELALSNLLYAFDWELPFGMKKEDIDTNARPGITMHHKKNELYLIPKNYL	SEQ ID No.:24 D35-BB7
	(92.8)
IALGVASMELALSNLLYAFDWELPYGVKKENIDTNVRPGITMHHKKNELCLIPRNYL	SEQ ID No.:26 D177-BA7
	(96.4)
IALGVASMELALSNLLYAFDWELPYGVKKEDIDTNVRPGIAMHHKKNELCLVPKNYL	SEQ ID No.:28 D56A-AB6
	(94.6)
IALGVASMELALSNLLYAFDWELPYGVKKEDIDTNVRPGIAMHHKKNELCLVPKLLFINYIGTWISC	SEQ ID No.:30 D144-AE2

Group 7

ISFGLANAYLPLAQLLYHFDWELPTGIKPSDLDLTELVGVTAAARKSDLYLVATPYQPPQN	SEQ ID No.:32 D56-AG11
	(93.3)
ISFGLANAYLPLAQLLYHFDWKLPAgiePSDLDLTELVGVTAAARKSDLYLVATPYQPPQK	SEQ ID No.:34 D179-AA1

Group 8

MLFGLANVGQPLAQLLYHFDWKLpngQSHENFDMTESPGISATRKDDLVIATPYDSY	SEQ ID No.:36 D56-AC7
	(91.2)
MLFGLANVGQPLAQLLYHFDWKLpngQTHQNFDMTESPGISATRKDDLILIATPAHS	SEQ ID No.:38 D144-AD1

Group 9

LLFGLVNVGHPLAQLLYHFDWKTLPGISSDSFDMTETDGVTAGRKDDLCLIATPFGLN

SEQ ID No.:40 D144-AB5

Group 10

MSFGLVNTGHPLAQLLYFFDWKFPKVNAAADFHTTETSRVFAASKDDLYLIPTNHMEQE

SEQ ID No.:42 D181-AB5

| | | | |

(89.8)

MSFGLVNTGHPLAQLLYCFDWKLPDKVNANDFRTTETSRVFAASKDDLYLIPTNHREQE

SEQ ID No.:44 D73-Ac9

Group 11

MQFGLALVTLPLAHLHLHNFWDWKLPEGINARDLDMTEANGISARREKDLYLIATPYVSPLD

SEQ ID No.:46 D56-AC12

Group 12

MTYALQVEHLTMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVNPKVIIITPRLAPELY

SEQ ID No.:48 D58-AB9

| | |

|| |

(89.6)

MTYALQVEHLTMAHLIQGFNYKTPNDEALDMKEGAGITIRKVNPKVELIIAPRLAPELY

SEQ ID No.:50 D56-AG9

|

(98.2)

MTYALQVEHLTMAHLIQGFNYKTPNDEALDMKEGAGITIRKVNPKVELIIITPRLAPELY

SEQ ID No.:52 D56-AG6

| |

|

(94.8)

MTYALQVEHLTMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVNPKVELIIAPRLAPELY

SEQ ID No.:54 D35-BG11

|

(98.3)

MTYALQVEHLTMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVNPKVELIIAP-LAPELY

SEQ ID No.:56 D35-42

|

(98.3)

MTYALQVEHLTMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVNPKAELIIAPRLAPELY

SEQ ID No.:58 D35-BA3

|

|

|

| | | | |

(84.5)

MTYALQVEHLTIAHLIQGFNYKTPNDEPLDMKEGAGLTIRKVNPKVEVTTTARLAPELY

SEQ ID No.:60 D34-57

|

(98.3)

MTYALQVEHLTIAHLIQGFNYKTPNDEPLDMKEGAGLTIRKVNPKVEVTITARLAPELY

SEQ ID No.:62 D34-52

Group 13

YSLGLKVIRVTLANMLHGFWNKLPEGMKPEDISVEEHYGLTTHPKFPVPVILESRLSSDLYSPIT

SEQ ID No.:66 D56-AD10

Group 14

YSLGIRIIRATLANLLHGFWNRLPNGMSPEDISMEEIYGLITHPKVALDVMMEPRLPNHLYK

SEQ ID No.:68 D56-AA11

Group 15

INFSIPLVELALANLLFHYNWSLPEGMLAKDQVDMEEALGITMHKKSPLCLVASHYTC

SEQ ID No.:70 D177-BD5

|

||

(94.7)

INFSIPLVELALANLLFHYNWSLPEGMLPKDQVDMEEALGITMHKKSPLCLVASHYNLL

SEQ ID No.:84 D177-BD7

Group 16

MQLGLYALEMAVAHLLLCFTWELPDGMKPSELKMDDIFGLTAPRANRLVAVPSPRLLCPLY

SEQ ID No.:74 D58-BC5

|

|

(96.7)

MQLGLYALEMAVAHLLHCFTWELPDGMKPSELKMDDIFGLTAPRANRLVAVPTPRLLCPLY

SEQ ID No.:76 D58-AD12

|

(98.4)

MQLGLYALEMAVAHLLHCFTWELPDGMKPSELKMDDIFGLTAPKANRLVAVPTPRLLCPLY

SEQ ID No.:72 D56A-AG10

Group 17

MLWSASIVRVSYLTICIYRFQVYAGSVFRVA

SEQ ID No.:78 D56-AC11

MLWSASIVRVSYLTCTIYRFQVYAGSVSRVA

(96.7)
SEQ ID No.:88 D56-AD6F

Group 18

LNFMLEAKMALALILQHYAFELSPSYAHAPHHTIITLQPQHGAPLILRKL

SEQ ID No.:90 D73A-AD6

Group 19

QNFAILEAKMAIAMILQRFSELSYTHSPYTVVTLKPKYGAPLIMHRL

SEQ ID No.:96 D70A-AB5
(72.0)

QNFMLEAKMALSMILQRFSELSYTHAPQSILTVQPOYGAPLIHFKL

SEQ ID No.:100 D70A-AB8
(82.0)

INFAMTEAKMAMAMILQRFSELSYTHAPQSVITMQPOYGAPLILHKL

SEQ ID No.:102 D70A-BH2
(98.0)

INFAMAEAKMAMAMILQRFSELSYTHAPQSVITMQPOYGAPLILHKL

SEQ ID No.:104 D70A-AA4
(70.0)

QNFMMEAKMAVAMILHKFSFELSPSYTHAPFAIVTIHPQYGAPLLMRRL

SEQ ID No.:108 D70A-BA9
(98.0)

QNFMMEAKMAVAMILQKFSFELSPSYTHAPFAIVTIHPQYGAPLLMRRL

SEQ ID No.:106 D70A-BA1

Group 20

QNFMLEAKMAMAMILKTYAFELSPSYAHAPHPLLLQPQYGAQLILYKL

SEQ ID No.:110 D70A-BD4

Group 21

YSMGLKAIQASLANLLHGFWNSLPDNMTPEDLNMDEIFGLSTPKKFPLATVIEPRLSPKLYSV

SEQ ID No.:112 D181-AC5
(96.8)

YSLGLKEIQASLANLLHGFWNSLPDNMTPEDLNMDEIFGLSTPKKFPLATVIEPRLSPKLYSV

SEQ ID No.:114 D144-AH1
(96.8)

HSLGLKVIQASLANLLHGFWNSLPDNMTPEDLNMDEIFGLSTPKKFPLATVIEPRLSPKLYSV

SEQ ID No.:116 D34-65

Group 22

LCFPCLISSYILALNVNLYHNFLQISPSISY

SEQ ID No.:118 D35-BG2

Group 23

SGLAQCVVGLALATLVQCFEWKRVSEEVVDLTEGKGLTMPKPEPLMARCEARDIFHKVLSEIS

SEQ ID No.:120 D73A-AH7

Group 24

LGLATVHVNLMMLARMIQEFWSAYPENRKVDLLRNWNLLW

SEQ ID No.:136 D185-BG2
(77.5)

LGLATVHVNLMMLARMIQEFWSAYPENRKVDFTKLEFTVVMKNPLRAKVKPRMQVV

SEQ ID No.:122 D58-AA1
(98.2)

LGLATVHVNLMMLARTIQEFWSAYPENRKVDFTKLEFTVVMKNPLRAKVKPRMQVV

SEQ ID No.:134 D185-BC1

YALAMHLEYFVANLVWHFRWEAVEGDDVDLSEKLEFTVVMKNPLRARICPRVNSI

SEQ ID No.:124 D73A-AE10

QQVGLLRTTIFIASLLSEYKLKPRSHOKOVELTDLNPASWLHSIKGELLVDAIPRKKA

SEQ ID No.:126 D56A-AC12

ITFAK FVNELALARLMFHDFSLPKGVKHEDLDVEEAAGITVRRKFPLLAVATPCS

SEQ ID No.:128 D177-BF7

(98.2)

ITFAKFVNELALARLMFHDFSLPKGVKHA~~DL~~DVEEAAGITVRRKFP~~LL~~AVATPCS

SEQ ID No.:140 D185-BD2

QRYAINHLMFLIALIDFKRHKTGCDIAYIPTIAPKDDCKVFLSORCTRFPSFS

SEQ ID No.:130 D73A-AG3

MSFGLANLYLPLAQLLYHFDWKLPTGIKPRDLDTLSGITIARKGDLYLNATPYOPSRE

SEQ ID No.:132 D70A-AA12

ISFGLANVYLPLAQLLYHFDWKLPTGINSSDLDMTESSGVTCAKSSDLYLTATPYQLSOE

(80.0)

SEQ ID No.: 86 176-BF2

QNFAMLEAKTTLAMILQRFSFELSPSYAHAPQSIITCNPSMVLHLFCIKYSLLLVSSVSFYVKHESKMLRLVELONGNAFALVHCRLL

SEO ID No.:146 D176-BC3

ADMGLRAVSLALGALIQCFDWQIEEAESLEESYNSRMTMKNKPLKVVCTPREDLGOLLSQL

SEQ ID No.:148 D176-BB3

MNYSLQVEHLSIAHMIQGFSFATTTNEPLDMKQGVGLTLPKKT DVEVLITPRLPPTLYOY

SEQ ID No.:6 D186-AH4

The percentage identity between most related pairs is noted in (0.0%). Each group had at least 70% identity to another group member. Group 19 contained the lowest percentage identity at 70.0%.

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 1

```

D58-BG7      GCACAACCTGCTATCAACTTGGTCACATCTATGTTGGGTCATTGTTGCATCATTTTACA SEQ ID No 1
D58-AB1      GCACAACCTGCTATCAACTTGGTCACATCTATGTTGGGTCATTGTTGCATCATTTTACG SEQ ID No 3
D58-BE4      GCACAACCTGCTATCAACTTGGTCACATCTATGTTGGGTCATTGTT-CATCATTTTACA SEQ ID No 7
*****
D58-BG7      TGGGCTCCGGCCCCGGGGGTTAACCCGGAGGATATTGACTTGGAGGAGAGCCCTGGAACA
D58-AB1      TGGGCTCCGGCCCCGGGGGTTAACCCGGAGAAATTGACTTGGAGGAGAGCCCTGGAACA
D58-BE4      TGGGCTCCGGCCCCGGGGGTTAACCCGGAGGATATTGACTTGGAGGAGAGCCCTGGAACA
*****
D58-BG7      GTAACCTACATGAAAAATCCAATACAAGCTATTCCAACCTCAAGATTGCCTGCACACTTG
D58-AB1      GTAACCTACATGAAAAATCCAATACAAGCTATTCTACTCCAAGATTGCCTGCACACTTG)
D58-BE4      GTAACCTACATGA-----
*****
D58-BG7      TATGGACGTGTGCCAGTGGATATGTAA
D58-AB1      TATGGACGTGTGCCAGTGGATATGTAA
D58-BE4      -----

```

PERCENT IDENTITY OF GROUP 1

	<u>D58-BG7</u>	<u>D58-BE4</u>	<u>D58-AB1</u>	
D58-BG7	***	96.2	98.1	SEQ ID No 1
D58-BE4		***	94.0	SEQ ID No 7
D58-AB1			***	SEQ ID No 3

ALIGNMENT OF GROUP 2

```

D56-AH7      GAAGGATTGGCTGTTGGAATGGTTGCCTTGTGATTGGGATGTATTATTCAATGTTTGTAT SEQ ID No 9
D13a-5      GAAGGATTGGCTATTTCGAATGGTTGCATTGTGATTGGGATGTATTATTCAATGCTTTGTAT SEQ ID No 11
*****
D56-AH7      TGGCAACGAATCGGCGAAGAATTGGTTGATATGACTGAAGGAAGTGGACTTACTTTGCCT
D13a-5      TGGCAACGACTTGGGGAAGGATTGGTTGATAAGACTGAAGGAAGTGGACTTACTTTGCCT
*****
D56-AH7      AAAGCTCAACCTTTGGTGGCCAAGTGTAGCCACGACCTAAAATGGCTAATCTTCTCTCT
D13a-5      AAAGCTCAACCTTTAGTGGCCAAGTGTAGCCACGACCTATAATGGCTAATCTTCTTCT
*****
D56-AH7      CAGATTTGA
D13a-5      CAGATTTGA
*****

```

PERCENT IDENTITY OF GROUP 2

	<u>D56-AH7</u>	<u>D13a-5</u>	
D56-AH7	***	93.7	SEQ ID No 9
D13a-5		***	SEQ ID No 11

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 3

```

D56-AG10      ATAGGTTTTCGACTTTAGTGACACATCTGACTTTTGGTCGCTTGCTTCAAGGTTTGTAT  SEQ ID No 13
                |
D35-33        ATAGGCTTTGCGACTTTAGTGACACATCTGACTTTTGGTCGCTTGCTTCAAGGTTTGTAT  SEQ ID No 15
                |||
D34-62        ATAAATTTTCGACTTTAGTGACACATCTGACTTTTGGTCGCTTGCTTCAAGGTTTGTAT  SEQ ID No 17
                *** *****

D56-AG10      TTTAGTAAGCCATCAAAACACGCCAATTGACATGACAGAAGCGTAGGCGTTACTTTGCCT
D35-33        TTTAGTAAGCCATCAAAACACGCCAATTGACATGACAGAAGCGTAGGCGTTACTTTGCCT
                |
D34-62        TTTAGTACGCCATCAAAACACGCCAATTAGACATGACAGAAGCGTAGGCGTTACTTTGCCT
                *****

D56-AG10      AAGGTTAATCAAGTTGAAGTTCTAATTACCCCTCGTTTACCTTCTAAGCTTTATTTATTTGA
                ||
D35-33        AAGGTTAATCAAGTTGAAGTTCTAATTACCCCTCGTTTACCTTCTAAGCTTTATTTAT-----
                |
D34-62        AAGGTAATCAAGTTGAAGTTCTAATTAGCCCTCGTTTACCTTCTAAGCTTTATGTATTCTGA
                *****

```

PERCENT IDENTITY OF GROUP 3

	<u>D56-AG10</u>	<u>D35-33</u>	<u>D34-62</u>	
D56-AG10	***	98.9	95.1	SEQ ID No 13
D35-33		***	94.4	SEQ ID No 15
D34-62			***	SEQ ID No 17

ALIGNMENT OF GROUP 4

```

D56-AA7      ATTATACTTGCAATTGCCAATTCTTGGCATTACCTTGGGACGTTTGGTTCAGAACTTTGAG
                |
D56-AE1      ATTATACTTGCAATTGCCAATTCTTGGCATTACTTTGGGACGTTTGGTTCAGAACTTTGAG
                |
D185-BD3     ATTATCCTTGCACTGCCAATTCTTGGCATTACCTTGGGACGCTTGGTGCAGAACTTTGAG
                *****

D56-AA7      CTGTTGCCTCCTCCAGGCCAGTCGAAGCTCGACACCACAGAGAAAGGTGGACAGTTCAGT
D56-AE1      CTGTTGCCTCCTCCAGGCCAGTCGAAGCTCGACACCACAGAGAAAGGTGGACAGTTCAGT
                |
D185-BD3     TTGTTGCCTCCTCCAGGACAGTCAAAGCTTGACACAACAGAGAAAGCGGGCAATTCAGT
                *****

D56-AA7      CTCCACATTTTGAAGCATTCCACCATTGTGTTGAAACCAAGGTCTTTCTGA
                |
D56-AE1      CTCCATATTTTGAAGCATTCCACCATTGTGTTGAAACCAAGGTCTTGCTGA
                |
D185-BD3     CTGCACATTTTGAAGCATTCCACCATTGTGATGAAACCAAGATCTTTTAA
                ** *

```

PERCENT IDENTITY OF GROUP 4

	<u>D56AA7</u>	<u>D56-AE1</u>	<u>D185-BD3</u>	
D56AA7	***	98.2	87.7	SEQ ID No 19
D56-AE1		***	87.1	SEQ ID No 21
D185-BD3			***	SEQ ID No 143

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 5

D56A-AB6	ATTGCACCTTGGGGTTGCATCCATGGAACCTTGCTTTGTCAAATCTTCTTTATGCATTTGAT	SEQ ID No 27
D35-BB7	ATTGCACCTTGGGGTTGCATCAATGGAACCTTGCAATGTGCAAATCTTCTTTATGCATTTGAT	SEQ ID No 23
D177-BA7	ATTGCACCTTGGGGTTGCATCCATGGAACCTTGCTTTGTCAAATCTTCTTTATGCATTTGAT	SEQ ID No 25
D144-AE2	ATTGCACCTTGGGGTTGCATCCATGGAACCTTGCTTTGTCAAATCTTCTTTATGCATTTGAT *****	SEQ ID No 29
D56A-AB6	TGGGAGTTGCCTTATGGAGTGAAAAAGAAGACATCGACACAACGTTAGGCCTGGAATT	
D35-BB7	TGGGAGTTACCTTTTGGAAATGAAAAAGAAGACATTGACACAACGCCAGGCCTGGAATT	
D177-BA7	TGGGAGTTACCTTACGGAGTGAAAAAGAAAACATTGACACAATGTCAGGCCTGGAATT	
D144-AE2	TGGGAGTTGCCTTATGGAGTGAAAAAGAAGACATCGACACAACGTTAGGCCTGGAATT ***** ** *	
D56A-AB6	GCCATGCACAAGAAAAACGAACCTTGCCTTGTCCCAAAAA-TTATTTATA-----	
D35-BB7	ACCATGCATAAGAAAAACGAACCTTATCTTATCCCTAAAA-TTATCTATAG-----	
D177-BA7	ACCATGCATAAGAAAAACGAACCTTGCCTTATCCCTAGAAA-TTATCTATAG-----	
D144-AE2	GCCATGCACAAGAAAAACGAACCTTGCCTTGTCCCAAAAAATTATTTATAAATTAT ***** * * * *	
D56A-AB6	-----	
D35-BB7	-----	
D177-BA7	-----	
D144-AE2	ATTGGGACGTGGATCTCATGCTAG	

PERCENT IDENTITY OF GROUP 5

	<u>D56A-AB6</u>	<u>D35-BB7</u>	<u>D144-AE2</u>	<u>D177-BA7</u>	
D56A-AB6	***	90.6	97.1	91.8	SEQ ID No 27
D35-BB7		***	87.7	93.0	SEQ ID No 23
D144-AE2			***	88.9	SEQ ID No 29
D177-BA7				***	SEQ ID No 25

ALIGNMENT OF GROUP 6

D56-AG11		A T T C G T T T G G T T T A G C T A A T G C T T A T T T G C C A T T G G C T C A A T T A C T T T A T C A C T T T G A T
D179-AA1		A T T C G T T T G G C T T A G C T A A T G C T T A T T T G C C A T T G G C T C A A T T A C T A T A T C A C T T C G A T
		* * * * *
D56-AG11		T G G G A A C T C C C C A C T G G A A T C A A C C A A G C G A C T T G G A C T T G A C T G A G T T G G T T G G A G T A
D179-AA1		T G G A A A C T C C C T G C T G G A A T C G A A C C A A G C G A C T T G G A C T T G A C T G A G T T G G T T G G A G T A
		* * * * *
D56-AG11		A C T G C C G C T A G A A A A A G T G A C C T T T A C T T G G T T G C G A C T C C T T A T C A A C C T C C T C A A A A C T G A
D179-AA1		A C T G C C G C T A G A A A A A G T G A C C T T T A C T T G G T T G C G A C T C C T T A T C A A C C T C C T C A A A A G T G A
		* * * * *

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

PERCENT IDENTITY OF GROUP 6

	SEQ ID No 31	SEQ ID No 33	
	D56-AG11	D179-AA1	
D56-AG11	***	95.6	SEQ ID No 31
D179-AA1		***	SEQ ID No 33

ALIGNMENT OF GROUP 7

D56-AC7	ATGCTATTTGGTTTAGCTAATGTTGGACAACCTTTAGCTCAGTTACTTTATCACTTCGAT	SEQ ID No 35
D144-AD1	ATGCTATTTGGTTTAGCTAATGTTGGACAACCTTTAGCTCAGTTACTTTATCACTTCGAT	SEQ ID No 37

D56-AC7	TGGAAACTCCCTAATGGACAAAGTCATGAGAATTTGACATGACTGAGTCACCTGGAATT	
D144-AD1	TGGAAACTCCCTAATGGACAAACTCACCAAAATTTGACATGACTGAGTCACCTGGAATT	

D56-AC7	TCTGCTACAAGAAAGGATGATCTTGTGTTTGATTGCCACTCCTTATGATTCTTATTAA	
D144-AD1	TCTGCTACAAGAAAGGATGATCTTATTTTGATTGCCACTCCTGCTCATTCTTGA	

Deleted:

PERCENT IDENTITY OF GROUP 7

	D144-AD1	D56-AC7	
D144-AD1	***	94.3	SEQ ID No 37
D56-AC7F		***	SEQ ID No 35

Deleted: ¶

ALIGNMENT OF GROUP 9

D181-AB5	ATGTCGTTTGGTTTAGTTAACTAGGGCATCCTTTAGCTCAGTTGCTCTATTCTTTGAC	SEQ ID No 41
D73-AC9	ATGTCGTTTGGTTTAGTTAACTAGGGCATCCTTTAGCCCAGTTGCTCTATTGCTTTGAC	SEQ ID No 43

D181-AB5	TGGAAATTCCTCATAAGGTTAATGCAGCTGATTTTCACACTACTGAAACAAGTAGAGTT	
D73-AC9	TGGAAATTCCTGACAAGGTTAATGCAAATGATTTTCGCACTACTGAAACAAGTAGAGTT	

D181-AB5	TTTGACAGCAAGCAAAGATGACCTCTACTTGATTCCACAAATCACATGGAGCAAGAGTAG	
D73-AC9	TTTGACAGCAAGCAAAGATGACCTCTACTTGATTCCACAAATCACAGGGAGCAAGAGTAG	

PERCENT IDENTITY OF GROUP 9

	D181-AB5	D73-AC9	
D181-AB5	***	92.8	SEQ ID No 41
D73-AC9		***	SEQ ID No 43

Deleted: ¶

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 11

D58-AB9	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 47
D56-AG9	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 49
D35-BG11	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 53
D34-25	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 63
D35-BA3	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 57
D34-52	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 61
D56-AG6	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 51
D35-42	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 55
D34-57	ATGACTTATGCATTGCAAGTGGAAACACCTAACAAATGGCACATTGATCCAGGGTTTCAAT	SEQ ID No 59

D58-AB9	TACAGAACTCCAACTGATGAGCCCTTGGATATGAAAGAAGGTGCAGGCATAACTATACGT
D56-AG9	TACAAAACCTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGCATAACTATACGT
D35-BG11	TACAGAACTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGCATAACTATACGT
D34-25	TACAAAACCTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGATTAACATATACGT
D35-BA3	TACAGAACTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGCATAACTATACGT
D34-52	TACAAAACCTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGATTAACATATACGT
D56-AG6	TACAAAACCTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGCATAACAATACGT
D35-42	TACAGAACTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGCATAACTATACGT
D34-57	TACAAAACCTCCAAATGACGAGGCCCTTGGATATGAAGGAAGGTGCAGGATTAACCATACGT
	**** *****

D58-AB9	AAGGTAAATCCTGTGAAAGTGATAATTACGCCTCGCTTGGCACCTGAGCTTTATTAA
D56-AG9	AAGGTAAATCCTGTGAAAGTGATAATTACGCCTCGCTTGGCACCTGAGCTTTATTAA
D35-BG11	AAGGTAAATCCTGTGAAAGTGATAATTACGCCTCGCTTGGCACCTGAGCTTTATTAA
D34-25	AAAGTAAATCCTGTAGAAGTGACAATTACGGCTCGCTTGGCACCTGAGCTTTATTAA
D35-BA3	AAGGTAAATCCTGCGGAACTGATAATTACGCCTCGCTTGGCACCTGAGCTTTATTAA
D34-52	AAAGTAAATCCTGTAGAAGTGACAATTACGGCTCGCTTGGCACCTGAGCTTTATTAA
D56-AG6	AAGGTAAATCCAGTGGAATTGATAATAACGCCTCGCTTGGCACCTGAGCTTTACTAA
D35-42	AAGGTAAATCCTGTGAAAGTGATAATTACGCCTCGCTTGGCACCTGAGCTTTATTAA
D34-57	AAAGTAAATCCTGTAGAAGTGACAATTACGGCTCGCTTGGCACCTGAGCTTTATTAA
	** *****

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

PERCENT IDENTITY OF GROUP 11

	D58-AB9		D56-AG6			D35-42			D34-57		D34-25
			D56-AG9		D35-BG11			D35-BA3		D34-52	
D58-AB9	***	93.8	93.2	94.3	90.8	93.2	90.9	92.0	91.5	SEQ ID No 47	
D56-AG9		***	96.6	97.2	94.2	96.6	91.5	92.6	92.0	SEQ ID No 49	
D56-AG6			***	93.8	90.2	92.6	90.3	90.9	90.3	SEQ ID No 51	
D35-BG11				***	97.1	99.4	90.9	92.0	91.5	SEQ ID No 53	
D35-42					***	96.5	87.3	88.4	87.9	SEQ ID No 55	
D35-BA3						***	90.3	91.5	90.9	SEQ ID No 57	
D34-57							***	98.9	98.3	SEQ ID No 59	
D34-52								***	99.4	SEQ ID No 61	
D34-25									***	SEQ ID No 63	

ALIGNMENT OF GROUP 14

D177-BD7	ATTAATTTTCAATACCACTTGTGAGCTTGCACTTGCTAATCTATTGTTTCATTATAAT	SEQ ID No 83
D177-BD5	ATTAATTTTCAATACCACTTGTGAGCTTGCACTTGCTAATCTATTGTTTCATTATAAT	SEQ ID No 69

D177-BD7	TGGTCAC TTCCTGAGGGGATGCTACCTAAGGATGTTGATATGGAAGAAGCTTTGGGGATT	
D177-BD5	TGGTCAC TTCCTGAAGGGATGCTAGCTAAGGATGTTGATATGGAAGAAGCTTTGGGGATT	

D177-BD7	ACCATGCACAAGAAATCTCCCCTTTGCTTAGTAGCTTCTCATTATAACTTGTGTGA	
D177-BD5	ACCATGCACAAGAAATCTCCCCTTTGCTTAGTAGCTTCTCATTATA-CTTGTGA--	

PERCENT IDENTITY OF GROUP 14

	D177-BD7	D177-BD5	
D177-BD7	***	96.0	SEQ ID No 83
D177-BD5		***	SEQ ID No 69

ALIGNMENT OF GROUP 15

D56A-AG10	ATGCAACTTGGGCTTTATGCATTGGAAATGGCTGTGGCCCATCTTCTTCATTGTTTACT	SEQ ID No 71
D58-AD12	ATGCAACTTGGGCTTTATGCATTGGAAATGGCTGTGGCCCATCTTCTTCATTGTTTACT	SEQ ID No 75
D58-BC5	ATGCAACTTGGGCTTTATGCATTAGAAATGGCAGTGGCCCATCTTCTTCTTGTCTTACT	SEQ ID No 73

D56A-AG10	TGGGAATTGCCAGATGGTATGAAACCAAGTGAGCTTAAATGGATGATATTTTGGACTC	
D58-AD12	TGGGAATTGCCAGATGGTATGAAACCAAGTGAGCTTAAATGGATGATATTTTGGACTC	
D58-BC5	TGGGAATTGCCAGATGGTATGAAACCAAGTGAGCTTAAATGGATGATATTTTGGACTC	

D56A-AG10	ACTGCTCCAAAGCTAATCGACTCGTGGCTGTGCCTACTCCACGTTTGTGTGTCCTT	
D58-AD12	ACTGCTCCAAGAGCTAATCGACTCGTGGCTGTGCCTACTCCACGTTTGTGTGTCCTT	
D58-BC5	ACTGCTCCAAGAGCTAATCGACTCGTGGCTGTGCCTAGTCCACGTTTGTGTGTCCTT	

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FIGURE 151: COMPARISON OF SEQUENCE GROUPS

D56A-AG10 TATTAA
D58-AD12 TATTAA
D58-BC5 TATTAA

PERCENT IDENTITY OF GROUP 15

	D56A-AG10	D58-AD12	D58-BC5	
D56A-AG10	***	99.5	95.7	SEQ ID No 71
D58-AD12		***	96.2	SEQ ID No 75
D58-BC5			***	SEQ ID No 73

ALIGNMENT OF GROUP 16

D56-AD6 ATGCTTTGGAGTGCGAGTATAGTGC GCGTCAGCTACCTA ACTTGATTTATAGATTCCAA SEQ ID No 87
D56-AC11 ATGCTTTGGAGTGCGAGTATAGTGC GCGTCAGCTACCTA ACTTGATTTATAGATTCCAA SEQ ID No 77
D35-39 ATGCTTTGGAGTGCGAGTATAGTGC GCGTCAGCTACCTA ACTTGATTTATAGATTCCAA SEQ ID No 79
D58-BH4 ATGCTTTGGAGTGCGAGTATAGTGC GCGTCAGCTACCTA ACTTGATTTATAGATTCCAA SEQ ID No 81

D56-AD6 GTATATGCTGGGCTCTGTGTCAGAGTAGCATGA
D56-AC11 GTATATGCTGGGCTCTGTGTCAGAGTAGCATGA
GTATATGCTGGGCTCTGTGTCAGAGTAGCATGA

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1

D58-BH4 GTATATGCTGGGCTCTGTGTCAGAGTAGCATGA

PERCENT IDENTITY OF GROUP 16

	D56-AC11	D56-AD6	D58-BH4	D35-39	
D56-AC11	***	98.7	98.7	98.7	SEQ ID No 77
D56-AD6		***	98.7	98.7	SEQ ID No 87
D58-BH4			***	98.7	SEQ ID No 81
D35-39				***	SEQ ID No 79

ALIGNMENT OF GROUP 17

D73A-AD6 CTGAATTTGCAATGTTAGAGGCAAAAATGGCACTTGCAATTGATTCTACAACACTATGCT SEQ ID No 89
D70A-BA11 CTGAATTTGCAATGTTAGAGGCAAAAATGGCACTTGCAATTGATTCTACAACACTATGCT SEQ ID No 91

D73A-AD6 TTTGAGCTCTCTCCATCTTATGCACATGCTCCTCATACAATTATCACTCTGCAACCTCAA
D70A-BA11 TTTGAGCTCTCTCCATCTTATGCACACGCTCCTCATACAATTATCACTCTGCAACCTCAA

D73A-AD6 CATGGTGCTCCTTTGATTTTGC GCAAGCTGTAG
D70A-BA11 CATGGTGCTCCTTTGATTTTGC GCAAGCTGTAG

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

PERCENT IDENTITY OF GROUP 17

	<u>D73A-AD</u>	<u>70A-BA11</u>	
D73A-AD6	***	99.3	SEQ ID No 89
D70A-BA11		***	SEQ ID No 91

ALIGNMENT OF GROUP 18

D70A-AB5	CAAAACTTCGCGATTTTGAAGCAAAAATGGCTATAGCTATGATTCTACAACGCTTCTCC	SEQ ID No 95
D70A-AA8	CAAAACTTCGCGATTTTGAAGCAAAAATGGCTATAGCTATGATTCTACAACGCTTCTCC *****	SEQ ID No 97
D70A-AB5	TTCGAGCTCTCCCCATCTTATACACACTCTCCATACACTGTGGTCACCTTTGAAACCCAAA	
D70A-AA8	TTCGAGCTCTCTCCATCTTATACACACTCTCCATACACTGTGGTCACCTTTGAAACCCAAA *****	
D70A-AB5	TATGGTGTCCCTAATAATGCACAGGCTGTAG	
D70A-AA8	TATGGTGTCCCTAATAATGCACAGGCTGTAG *****	

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PERCENT IDENTITY OF GROUP 18

	<u>D70A-AB5</u>	<u>D70A-AA8</u>	
D70A-AB5	***	99.6	SEQ ID No 95
D70A-AA8		***	SEQ ID No 97

ALIGNMENT OF GROUP 19

D70A-AB8	CAAAATTTGGCATGTTAGAGCAAGATGGCTCTGTCTATGATCCTGCAACGCTTCTCT	SEQ ID No 99
D70A-BH2	ATAAACTTTGCAATGACAGAAGCGAAGATGGCTATGGCTATGATTCTGCAACGCTTCTCC	SEQ ID No 101
D70A-AA4	ATAAACTTTGCAATGGCAGAAGCGAAGATGGCTATGGCTATGATTCTGCAACGCTTCTCC *** **	SEQ ID No 103
D70A-AB8	TTTGAAGTGTCTCCGCTTATGCACATGCCCTCAGTCCATTAACCGT-CAGCCACAA	
D70A-BH2	TTTGAGCTATCTCCATCTTACACACATGCTCCACAGTCTGTAATAACTATGCAACCCCAA	
D70A-AA4	TTTGAGCTATCTCCATCTTACACACATGCTCCACAGTCTGTAATAACTATGCAACCCCAA *****	
D70A-AB8	TATGGTGTCCCACTTATTTCCACAAGCTATAA	
D70A-BH2	TATGGTGTCTCTTATATTGCACAAATTGTAA	
D70A-AA4	TATGGTGTCTCTTATATTGCACAAATTGTAA *****	

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PERCENT IDENTITY OF GROUP 19

	<u>D70A-AB8</u>	<u>D70A-AA4</u>	<u>D70A-BH2</u>	
D70A-AB8	***	77.8	77.8	SEQ ID No 99
D70A-AA4		***	99.3	SEQ ID No 101
D70A-BH2			***	SEQ ID No 103

ALIGNMENT OF GROUP 20

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

D70A-BA1	CAAAACCTTGCAATGATGGAAGCAAAATGGCAGTAGCTATGATACTACAAAAATTTCC	SEQ ID No 105
D70A-BA9	CAAAACCTTGCAATGATGGAAGCAAAATGGCAGTAGCTATGATACTACATAAATTTCC *****	SEQ ID No 107
D70A-BA1	TTTGAACATATCCCCTTCTTATACACATGCTCCATTGCAATTGTGACTATTCATCCTCAG	
D70A-BA9	TTTGAACATATCCCCTTCTTATACACATGCTCCATTGCAATTGTGACTATTCATCCTCAG *****	
D70A-BA1	TATGGTGCTCCTCTGCTTATGCGCAGACTTTAA	
D70A-BA9	TATGGTGCTCCTCTGCTTATGCGCAGACTTTAA *****	

PERCENT IDENTITY OF GROUP 20

	D70A-BA1	D70A-BA9	
D70A-BA1	***	99.4	SEQ ID No 105
D70A-BA9		***	SEQ ID No 107

ALIGNMENT OF GROUP 22

D144-AH1	TATAGCTTGGGGCTCAAGGAGATTCAAGCTAGCTTAGCTAATCTTCTACATGGATTAAAC	SEQ ID No 113
D34-65	CATAGCTTGGGGCTCAAGGTGATTCAAGCTAGCTTAGCTAATCTTCTACATGGATTAAAC	SEQ ID No 115
D181-AC5	TATAGCATGGGGCTCAAGGCGATTCAAGCTAGCTTAGCTAATCTTCTACATGGATTAAAC *****	SEQ ID No 111
D144-AH1	TGGTCATTGCCTGATAATATGACTCCTGAGGACCTCAACATGGATGAGATTTTGGGCTC	
D34-65	TGGTCATTGCCTGATAATATGACTCCTGAGGACCTCAACATGGATGAGATTTTGGGCTC	
D181-AC5	TGGTCATTGCCTGATAATATGACTCCTGAGGACCTCAACATGGATGAGATTTTGGGCTC *****	
D144-AH1	TCTACACCTAAAAAATTTCCACTTGCTACTGTGATTGAGCCAAGACTTTCACCAAAACTT	
D34-65	TCTACACCTAAAAAATTTCCACTTGCTACTGTGATTGAGCCAAGACTTTCACCAAAACTT	
D181-AC5	TCTACACCTAAAAAATTTCCACTTGCTACTGTGATTGAGCCAAGACTTTCACCAAAACTT *****	
D144-AH1	TACTCTGTTTGA	
D34-65	TACTCTGTTTGA	
D181-AC5	TACTCTGTTTGA *****	

PERCENT IDENTITY OF GROUP 22

	D34-65	D181-AC5	D144-AH1	
D34-65	***	98.4	99.0	SEQ ID No 115
D181-AC5		***	99.0	SEQ ID No 111
D144-AH1			***	SEQ ID No 113

ALIGNMENT OF GROUP 25

D58-AA1	TTGGGCTTGGCAACGGTGATGTGAATTTGATGTTGGCCCGAATGATTCAAGAATTGAA	SEQ ID No 121
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FIGURE 151: COMPARISON OF SEQUENCE GROUPS

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D185-BC1      TTGGGCTTGGCAACGGTGCATGTGAATTTGATGTTGGCCCGAACGATTCAAGAATTTGAA  SEQ ID No 133
D185-BG2      TTGGGCTTGGCAACGGTGCATGTGAATTTGATGTTGGCCCGAACGATTCAAGAATTTGAA  SEQ ID No 135
                *****

D58-AA1       TGGTCCGCTTACCCGGAAAATAGGAAAGTGGATTTTACTGAGAAATTGGAATTTACTGTG
D185-BC1      TGGTCCGCTTACCCGGAAAATAGGAAAGTGGATTTTACTGAGAAATTGGAATTTACTGTG
D185-BG2      TGGTCCGCTTACCCGGAAAATAGGAAAGTGGATTT-ACTGAGAAATTGGAATTTACTGTG
                *****

D58-AA1       GTGATGAAAAATCCTTTAAGAGCTAAGGTCAAGCCAAGAATGCAAGTGGTGTA
D185-BC1      GTGATGAAAAACCTTTAAGAGCTAAGGTCAAGCCAAGAATGCAAGTGGTGTA
D185-BG2      GTGA-----
                ****

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PERCENT IDENTITY OF GROUP 25

	D58-AA1	D185-BG2	D185-BC1	
D58-AA1	***	95.9	98.9	SEQ ID No 121
D185-BG2		***	95.1	SEQ ID No 135
D185-BC1			***	SEQ ID No 133

ALIGNMENT OF GROUP 28

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D177-BF7      ATCACATTTGCTAAGTTTGTGAATGAGCTAGCATTGGCAAGATTAATGTTCCATTTTGAT  SEQ ID No 127
D185-BD2      ATCACATTTGCTAAGTTTGTGAATGAGCTAGCATTGGCAAGATTAATGTTCCATTTTGAT  SEQ ID No 139
D185-BE1      ATCACATTTGCTAAGTTTGTGAATGAGCTAGCATTGGCAAGATTAATGTTCCATTTTGAT  SEQ ID No 137
                *****

D177-BF7      TTCTCGCTACCAAAAGGAGTTAAGCATGAGGATTGGACGTGGAGGAAGCTGCTGGAATT
D185-BD2      TTCTCGCTACCAAAAGGAGTTAAGCATGCGGATTGGACGTGGAGGAAGCTGCTGGAATT
D185-BE1      TTCTCGCTACCAAAAGGAGTTAAGCATGAGGATTGGACGTGGAGGAAGCTGCTGGAATT
                *****

D177-BF7      ACTGTTAGAAGGAAGTTCCCCCTTTAGCCGTCGCCACTCCATGCTCGTGA
D185-BD2      ACTGTTAGAAGGAAGTTCCCCCTTTAGCCGTCGCCACTCCATGCTCGTGA
D185-BE1      ACTGTTAGGAGGAAGTTCCCCCTTTAGCCGTCGCCACTCCATGCTCGTGA
                *****

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PERCENT IDENTITY OF GROUP 28

	D177-BF7	D185-BD2	D185-BE1	
D177-BF7	***	99.4	99.4	SEQ ID No 127
D185-BD2		***	98.8	SEQ ID No 139
D185-BE1			***	SEQ ID No 137

ALIGNMENT OF GROUP 30

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

D70A-AA12	ATGTCATTGGTTTAGCTAATCTTACTTACCATTGGCTCAATTACTCTATCACTTTGAC	SEQ ID No 131
D176-BF2	ATATCATTGGTTTGGCTAATGTTTATTTGCCACTAGCTCAATTGTTATATCATTTTGAT	SEQ ID No 85
	** ***** *	
D70A-AA12	TGGAACTCCCAACCGGAATCAAGCCAAGAGACTTGGACTTGACCGAATTATCGGGAATA	
D176-BF2	TGGAACTCCCTACTGGAATCAATTCAAGTGACTTGGACATGACTGAGTCGTCAGGAGTA	
	***** *	
D70A-AA12	ACTATTGCTAGAAAGGTGACCTTTACTTAAATGCTACTCCTTATCAACCTTCTCGAGAGTAA	
D176-BF2	ACTTGCTAGAAAGAGTGATTATCTTACTTGACTGCTACTCCATATCAACTTCTCAAGAGTGA	
	*** ***** *	

PERCENT IDENTITY OF GROUP 30

	<u>D176-BF2</u>	<u>D70A-AA12</u>	
D176-BF2	***	77.0	SEQ ID No 85
D70A-AA12		***	SEQ ID No 131

FIGURE 152A: Alignment of Full Length Clones

GROUP 1	ExxRxxxP					FxxPERF		Gxx RxxC	
D208-AD9 98.8	EVLRLYPPGP	LLVPHENVED	CVVSGYHIPK	GTRLFANVMK	LQRDPKLWSD	PDTFDPERFI	ATDIDFRGQY	YKYIPFGPGR	RSC SEQ. ID. No. 299
D120-AH4 97.6	EVLRLYPPGP	LLVPHENVED	CVVSGYHIPK	GTRLFANVMK	LLRDPKLWPD	PDTFDPERFI	ATDIDFRGQY	YKYIPFGSGR	RSC SEQ. ID. No. 300
D121-AA8 91.6	EVLRLYPPGP	LLVPHENVED	CVVSGYHIPK	GTRLFANVMK	LQRDPKLWSD	PDTFDPERFI	ATDIDFRGQY	YKYIPFGSGR	RSC SEQ. ID. No. 301
D122-AF10 91.6	EVLRLYPPGP	LLVPHENVED	CVVSGYHIPK	GTRLFANVMK	LQRDPKLWSN	PDKFDPERFE	ADDIDYRGQH	YEFIPFGSGR	RSC SEQ. ID. No. 302
D103-AH3 98.8	KVLRLYPPGP	LLVPHENVKD	CVVSGYHIPK	GTRLFANVMK	LQRDPKLLSN	PDKFDPERFI	AGDIDFRGHH	YEFIPSGSGR	RSC SEQ. ID. No. 303
D208-AC8 98.8	KVLRLYPPGP	LLVPHENVKD	CVVSGYHIPK	GTRLFANVMK	LQRDPKLLSN	PDKFDPERFI	AGDIDFRGHH	YEFIPFGSGR	RSC SEQ. ID. No. 304
D235-AB1	KVLRLYPPGP	LLVPHEYVKD	CVVSGYHIPK	GTRLFANVMK	LQRDPKLLSN	PDKFDPERFI	AGDIDFRGHH	YEFIPFGSGR	RSC SEQ. ID. No. 305
GROUP 2	ExxRxxxP					FxxPERF		GxxRxxC	
D244-AD4 100.0	ETLRLYPPVP	FLLPHEAVQD	CKVTGYHIPK	GTRLYINAWK	VHRDPEIWSE	PEKFMNPRFL	TSKANIDARG	QNFEFIPFGS	GRRSC SEQ. ID. No. 306
D244-AB6 98.8	ETLRLYPPVP	FLLPHEAVQD	CKVTGYHIPK	GTRLYINAWK	VHRDPEIWSE	PEKFMNPRFL	TSKANIDARG	QNFEFIPFGS	GRRSC SEQ. ID. No. 307
D285-AA8 100.0	ETLRLFPPVP	FLLPHEAVQD	CKVTGYHIPK	GTRLYINAWK	VHRDPEIWSE	PEKFMNPRFL	TSKANIDARG	QNFEFIPFGS	GRRSC SEQ. ID. No. 308
D285-AB9 97.6	ETLRLFPPVP	FLLPHEAVQD	CKVTGYHIPK	GTRLYINAWK	VHRDPEIWSE	PEKFMNPRFL	TSKANIDARG	QNFEFIPFGS	GRRSC SEQ. ID. No. 309
D268-AE2	ETLRLYPPVP	FLLPHEAVQD	CKVTGYHIPK	GTRLYINAWK	VHRDSEIWSE	PEKFMNPRFL	TSKANIDARG	QNFEFIPFGS	GRRSC SEQ. ID. No. 310
GROUP 3	ExxRxxxP					FxxPERF		GxxRxx C	
D100A-AC3 97.6	ETFRMYPAGP	LLVPHESSEE	TTVGGYRVPG	GTMLLVNLWA	IHNDPKLWDE	PRKFKPERFE	GLEGVRDGYK	MMPFSGRRS	C SEQ. ID. No. 311
D100A-BE2	ETFRMYPAGP	LLVPHESSEE	TTVGGYRVPG	GTMLLVNLWA	IHNDPKLWDE	PRKFKPERFQ	GLDGVDRDGYK	MMPFSGRRS	C SEQ. ID. No. 312

FIGURE 152B: Alignment of Full Length Clones

GROUP 4	ExxRxxP						FxPERF		Gx RxC		
D205-BG9	ETMRLYTPIP	LLLPHYSTKD	CIVEGYDVPK	HTMLFVNAWA	IHRDPKVWEE	PDKEFKPERFE	ATEGETERFN	YKLVPFGMGR	RAC SEQ.	ID. No.	313
100.0											
D205-BE9	ETMRLYTPIP	LLLPHYSTKD	CIVEGYDVPK	HTMLFVNAWA	IHRDPKVWEE	PDKEFKPERFE	ATEGETERFN	YKLVPFGMGR	RAC SEQ.	ID. No.	314
100.0											
D205-AH4	ETMRLYTPIP	LLLPHYSTKD	CIVEGYDVPK	HTMLFVNAWA	IHRDPKVWEE	PDKEFKPERFE	ATEGETERFN	YKLVPFGMGR	RAC SEQ.	ID. No.	315
GROUP 5	ExxRxxP						FxPERF		Gx RxC		
D259-AB9	ETMRLHPVAP	MLVPRECRED	IKVAGYDVQK	GTRVLVSVWT	IGRDPPTLWDE	PEVFKPERFH	EKSIDVKGHD	YELLPPFGAGR	RMC SEQ.	ID. No.	316
100.0											
D257-AE4	ETMRLHPVAP	MLVPRECRED	IKVAGYDVQK	GTRVLVSVWT	IGRDPPTLWDE	PEVFKPERFH	EKSIDVKGHD	YELLPPFGAGR	RMC SEQ.	ID. No.	317
98.8											
D147-AD3	ETMRLHPVAP	MLVPRECRED	IKVAGYDVQK	GTRVLVSVWT	IGRDPPTLWDE	PEVFKPERFH	ERSIDVKGHD	YELLPPFGAGR	RMC SEQ.	ID. No.	318
GROUP 6	ExxRxxP						FxPERF		Gx RxC		
D249-AEB	EALRLHPPTP	LMPLPHRASAS	VKIGGYDIPK	GSIVHVNVA	VARDPAVWKN	PLEFRPERFL	EEDVDMKGHD	YRLLPPFGAGR	RVC SEQ.	ID. No.	319
98.8											
D248-AA6	EALRLHPPTP	LMPLPHKASAS	VKIGGYDIPK	GSIVHVNVA	VARDPAVWKN	PLEFRPERFL	EEDVDMKGHD	YRLLPPFGAGR	RVC SEQ.	ID. No.	320
GROUP 7	ExxRxxP						FxPERF		Gx RxC		
D233-AG7	ETLRLHPLGT	MLAPHCAIED	CNVAGYDIQK	GTTFVLNVWT	IGRDPKYWDR	AQEFLLPERFL	ENDIDMDGHN	FAFLPFGSGR	RRC SEQ.	ID. No.	321
98.8											
D224-BD11	ETLRLHPLGT	MLAPHCAIED	CNVAGYDIQK	GTTFVLNVWT	IGRDPKYWDR	AQEFLLPERFL	ENDIDMDGHN	FAFLPFGSGR	RRC SEQ.	ID. No.	322
100.0											
D224-AF10	ETLRLHPLGT	MLAPHCAIED	CNVAGYDIQK	GTTFVLNVWT	IGRDPKYWDR	AQEFLLPERFL	ENDIDMDGHN	FAFLPFGSGR	RRC SEQ.	ID. No.	323
GROUP 8	ExxRxxP						FxPERF		Gx RxC		
D105-AD6	EVLRLYPAGY	VINRMVNKET	KLGNLCLPAG	VQLVLPTMLL	QHDTEIWGDD	AMEFNPERFS	DGISKATK GK	LVFFPFSWGP	RIC SEQ.	ID. No.	324
100.0											
D215-AB5	EVLRLYPAGY	VINRMVNKET	KLGNLCLPAG	VQLVLPTMLL	QHDTEIWGDD	AMEFNPERFS	DGISKATK GK	LVFFPFSWGP	RIC SEQ.	ID. No.	325
95.2											
D135-AE1	EVLRLYPAGY	AINRMVTKET	KLGNLCLPAG	VQLLLPTILL	QHDTEIWGDD	AMEFNPERFS	DGISKATK GK	LVFFPFSWGP	RIC SEQ.	ID. No.	326

FIGURE 152C: Alignment of Full Length Clones

GROUP 9	ExxRxxP	FxPERF	Gx RxC
D87A-AF3 100.0	ESRLYPPPIA	TRTRRTNEET KLGEIDLPGK ALLFIPTILL HLDKEIWGED ADEFNPERFS	EGVAKATKGK MTYFFFGAGP RKC SEQ. ID. No. 327
D210-BD4	ESRLYPPPIA	TRTRRTNEET KLGEIDLPGK ALLFIPTILL HLDREIWGED ADEFNPERFS	EGVAKATKGK MTYFFFGAGP RKC SEQ. ID. No. 328
GROUP 10	ExxRxxP	FxPERF	Gx RxC
D89-AB1 100.0	ETLRMHPPIP	LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE	NSSIDFLGNH HQFIPFGAGR RIC SEQ. ID. No. 329
D89-AD2 100.0	ETLRMHPPIP	LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE	NSSIDFLGNH HQFIPFGAGR RIC SEQ. ID. No. 330
D163-AG12 98.8	ETLRMHPPIP	LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE	NSSIDFLGNH HQFIPFGAGR RIC SEQ. ID. No. 331
D163-AG11 100.0	ETLRMHPPIP	LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPQSWDD PESFTPERFE	NNSIDFLGNH HQFIPFGAGR RIC SEQ. ID. No. 332
D163-AF12	ETLRMHPPIP	LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPQSWDD PESFTPERFE	NNSIDFLGNH HQFIPFGAGR RIC SEQ. ID. No. 333
GROUP 11	ExxRxxP	FxPERF	Gx RxC
D267-AF10 100.0	ETLRMHPPVP	LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE	NTSVDLTGNH YQFIPFGSGR RMC SEQ. ID. No. 334
D96-AC2 100.0	ETLRMHPPVP	LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE	NTSVDLTGNH YQFIPFGSGR RMC SEQ. ID. No. 335
D96-AB6 96.4	ETLRMHPPVP	LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE	NTSVDLTGNH YQFIPFGSGR RMC SEQ. ID. No. 336
D207-AA5 100.0	ETLRMHPPVP	LLGPRECREQ TEIDGYTVPL KARVMVNAWA IGRDPESWED PESFKPERFE	NISVDLTGNH YQFIPFGSGR RMC SEQ. ID. No. 337
D207-AB4 100.0	ETLRMHPPVP	LLGPRECREQ TEIDGYTVPL KARVMVNAWA IGRDPESWED PESFKPERFE	NISVDLTGNH YQFIPFGSGR RMC SEQ. ID. No. 338
D207-AC4	ETLRMHPPVP	LLGPRECREQ TEIDGYTVPL KARVMVNAWA IGRDPESWED PESFKPERFE	NISVDLTGNH YQFIPFGSGR RMC SEQ. ID. No. 339
GROUP 12	ExxRxxP	FxPERF	Gx RxC
D98-AG1 100.0	ETLRLHPPTP	LLVPRECREE TEIEGFTIPL KSKVLNVWA IGRDPENWKN PECFIPERFE	NSSIEFTGNH FQLLPFGAGR RIC SEQ. ID. No. 340
D98-AA1	ETLRLHPPTP	LLVPRECREE TEIEGFTIPL KSKVLNVWA IGRDPENWKN PECFIPERFE	NSSIEFTGNH FQLLPFGAGR RIC SEQ. ID. No. 341

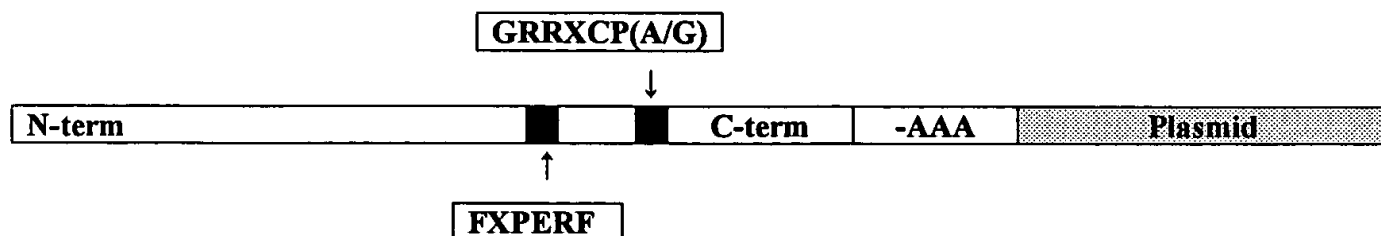
FIGURE 152D: Alignment of Full Length Clones

GROUP 13					
		ExxRxxP	FxPERF	Gx RxC	
D209-AA10	100.0	ETLRLHPPVP	LLLPRECEE TNINGYTIPV KTKVMNVWA LGRDPKYWND AETFMPEFFE QCSKDFVGNN FEYLPFGGGR RIC SEQ.	ID. No. 342	
D209-AA12	100.0	ETLRLHPPVP	LLLPRECEE TNINGYTIPV KTKVMNVWA LGRDPKYWND AETFMPEFFE QCSKDFVGNN FEYLPFGGGR RIC SEQ.	ID. No. 343	
D209-AH10	100.0	ETLRLHPPVP	LLLPRECEE TNINGYTIPV KTKVMNVWA LGRDPKYWND AETFMPEFFE QCSKDFVGNN FEYLPFGGGR RIC SEQ.	ID. No. 344	
D209-AH12	97.6	ETLRLHPPVP	LLLPRECEE TNINGYTIPV KTKVMNVWA LGRDPKYWND AETFMPEFFE QCSKDFVGNN FEYLPFGGGR RIC SEQ.	ID. No. 345	
D90a-BB3		ETLRLHPPVP	LLLPRECEE TNINGYTIPV KTKVMNVWA LGRDPKYWDD AETFKPERFE QCSKDFVGNN FEYLPFGGGR RIC SEQ.	ID. No. 346	
GROUP 14					
		ExxRxxP	FxPERF	Gx RxC	
D129-AD10	100.0	ETLRLHPPIP	LLLHETAES TVSGYHIPAK SHVIINSEAI GRDKNSWEDP ETYKPSRFLK EGVPDFKGGN FEFIPFGSGR RSC SEQ.	ID. No. 347	
D104A-AE8		ETLRLHPPIP	LLLHETAES TVSGYHIPAK SHVIINSEAI GRDKNSWEDP ETYKPSRFLK EGVPDFKGGN FEFIPFGSGR RSC SEQ.	ID. No. 348	
GROUP 15					
		ExxRxxP	FxPERF	Gx RxC	
D228-AH8	100.0	EIFRLYPPAP	LLVPRESMEK TILEGEYIRP RTIVHVNWA IARDPEIWEN PDEFIPERFL NSSIDYKGQD FELLPGAGR RGC SEQ.	ID. No. 349	
D228-AD7	100.0	EIFRLYPPAP	LLVPRESMEK TILEGEYIRP RTIVHVNWA IARDPEIWEN PDEFIPERFL NSSIDYKGQD FELLPGAGR RGC SEQ.	ID. No. 350	
D250-AC11	100.0	EIFRLYPPAP	LLVPRESMEK TILEGEYIRP RTIVHVNWA IARDPEIWEN PDEFIPERFL NSSIDYKGQD FELLPGAGR RGC SEQ.	ID. No. 351	
D247-AH1		EIFRLYPPAP	LLVPRESMEK TILEGEYIRP RTIVHVNWA IARDPEIWEN PDEFIPERFL NSSTDYKGQD FELLPGAGR RGC SEQ.	ID. No. 352	
GROUP 16					
		ExxRxxP	FxPERF	GxRxC	
D128-AB7	98.8	EALRLRMAIP	LLVPHMNLHD AKLGGFIDIPA ESKILVNAWW LANNPAHWKK PEEFRPERFF EEEKHVEANG NDFRYLPFGV GRRSC SEQ.	ID. No. 353	
D243-AA2	97.7	EALRLRMAIP	LLVPHMNLHD AKLGGLDIPA ESKILVNAWW LANNPAHWKK PEEFRPERFF EEEKHVEANG NDFRYLPFGV GRRSC SEQ.	ID. No. 354	
D125-AF11		ETLRLRMAIP	LLVPHMNLHD AKLGGFIDIPA ESKILVNAWW LANNPAHWKK PEEFRPERFF EEEKHVEANG NDFRYLPFGV GRRSC SEQ.	ID. No. 355	

FIGURE 152E: Alignment of Full Length Clones

GROUP 17	ExxRxxP	ILGNVSLPEG	VLLSLPVILL	HHDEEIWGKD	-KKFNPERFR	DGVSSATKGQ	VTEFFPFTWGP	RIC SEQ.	ID. No.
D284-AH5	ESLRLYSPVV	SLIRRPNEDA	ILGNVSLPEG	VLLSLPVILL	HHDEEIWGKD	-KKFNPERFR	DGVSSATKGQ	VTEFFPFTWGP	RIC SEQ. 356
86.7									
D110-AF12	ESLRLYPPVV	TLTRRPKEDT	VLGDVSLPAG	VLLSLPVILL	HHDEEIWGKD	AKKFKPERFR	DGVSSATKGQ	VTEFFPFTWGP	RIC SEQ. 357

Figure 153: Cloning of Cytochrome P450 cDNA Fragments by PCR



DM	FXPERF -for	5'-TTYIICCIGARMGITY-3'
DM4	GRRXCP(A/G)-for	5'-GGIMGIMGIIITGYCCIGS-3'
DM12	FKPERF-for	5'-TTYAARCCTGAGAGATT-3'
DM13	PERFL-for	5'-CCAGARAGATTCTTG-3'
DM17	GRRMCP-for	5'-GGRMGRMGRATGTGYCC-3'
OLIGO d(T)		5'-TTTTTTTTTTTTTTTTTTN-3'
T7		5'-ATTATGCTGAGTGATATCCC-3'
SP6		5'-ATTTAGGTGACACTATAG-3'

I = DeoxyInosine; Y = C, T; M = A,C; R = A,G; S = C,G; N= A,T,C,G